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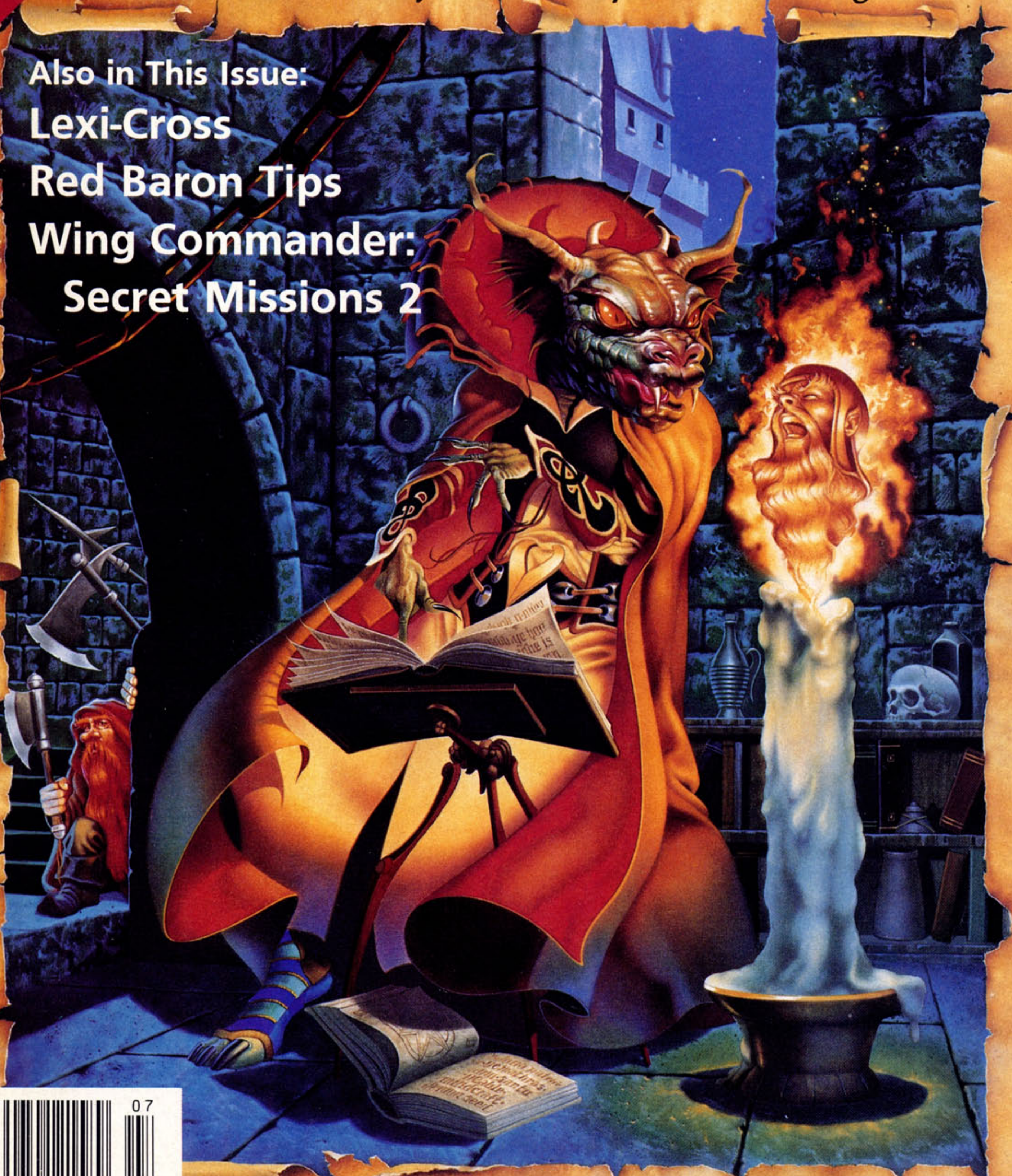
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Number 84

July 1991

COMPUTER GAMING WORLD

The Definitive Computer Game Magazine

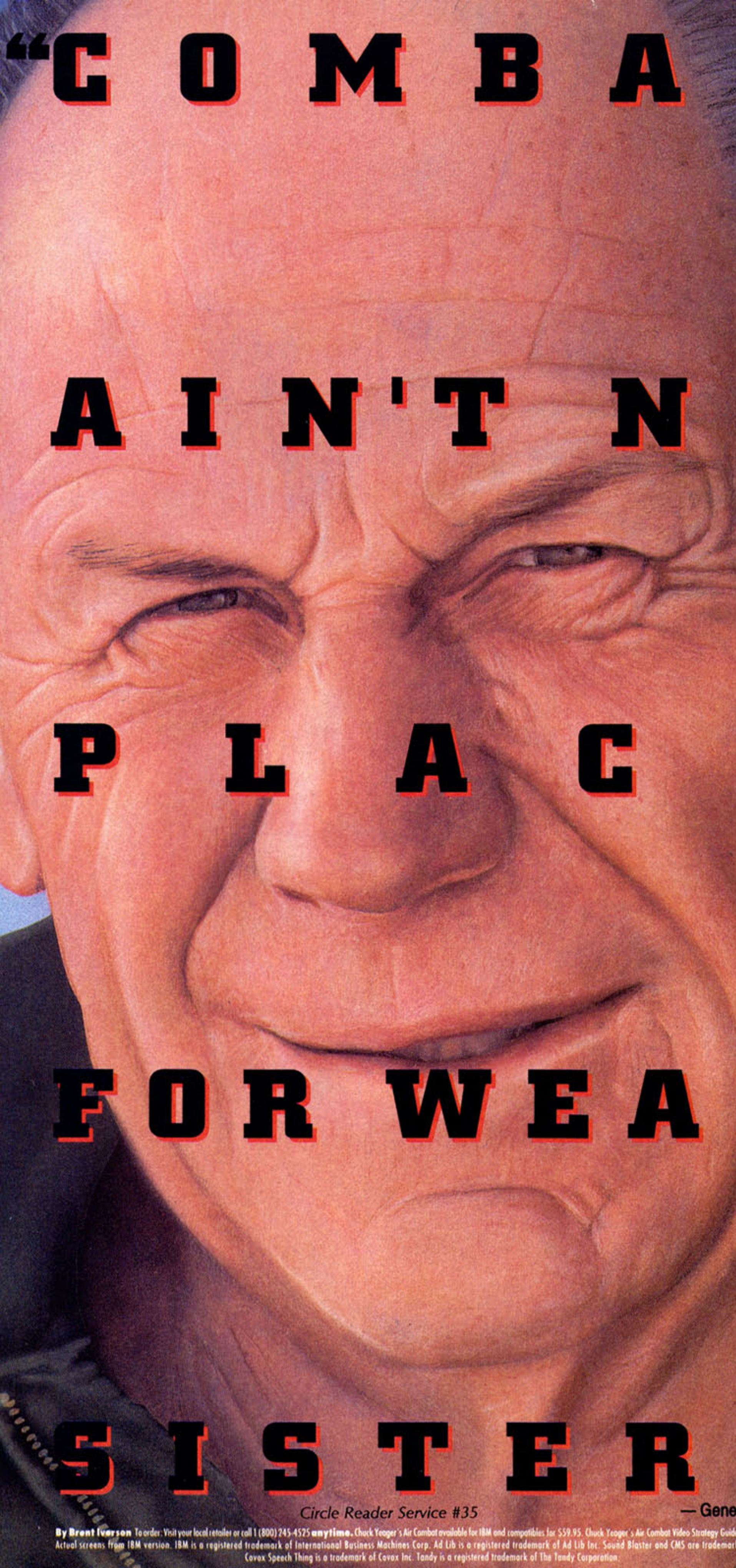


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By Brent Iverson To order: Visit your local retailer or call 1 (800) 245-4525 **anytime.** Chuck Yeager's Air Combat available for IBM and compatibles for $59.95. Chuck Yeager's Air Combat Video Strategy Guide available for $19.95 Actual screens from IBM version. IBM is a registered trademark of International Business Machines Corp. Ad Lib is a registered trademark of Ad Lib Inc. Sound Blaster and CMS are trademarks of Creative Labs. Covox Speech Thing is a trademark of Covox Inc. Tandy is a registered trademark of The Tandy Corporation.

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Soar into ***Continuum*** for a new and different journey. Explore a vast geometric labyrinth of shapes and colors in search of the 16 crystals and 16 cubes needed to complete your quest.

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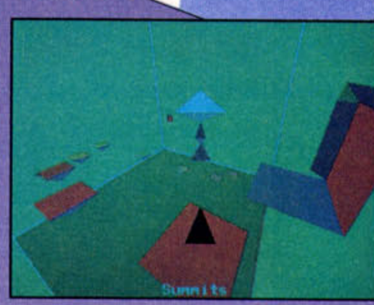
A few wrong turns and you could end up back where you were several rooms ago – wherever that was. So plot your course wisely and track all your moves.

Enjoy your trip without the pressure of a time clock – ***Continuum*** is not a race. It's an exploration. And with so many decisions to make and routes to take, your strategy for each new journey shapes a new adventure every time you play.



Continuum.

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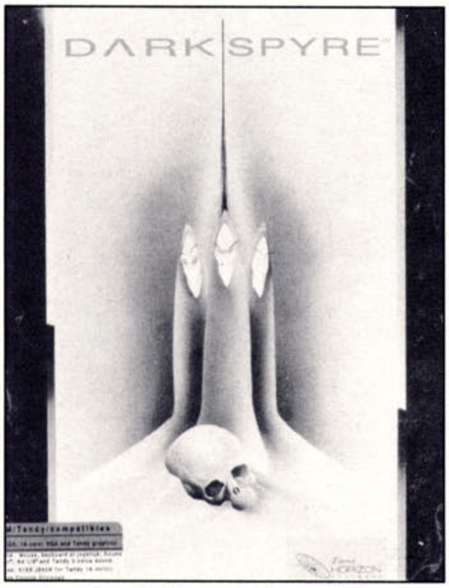
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COMPUTER GAMING WORLD

Covering the World of Computer Games for Ten Years

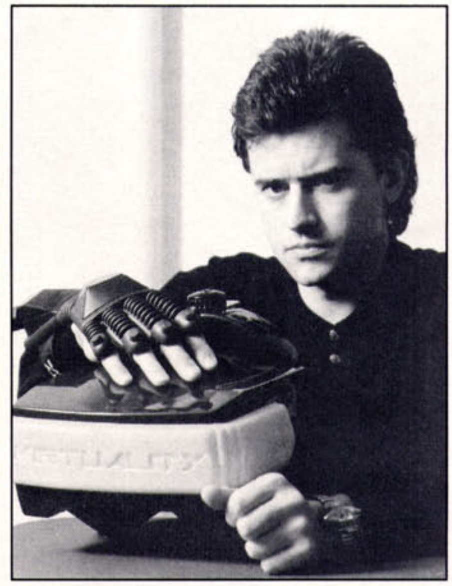
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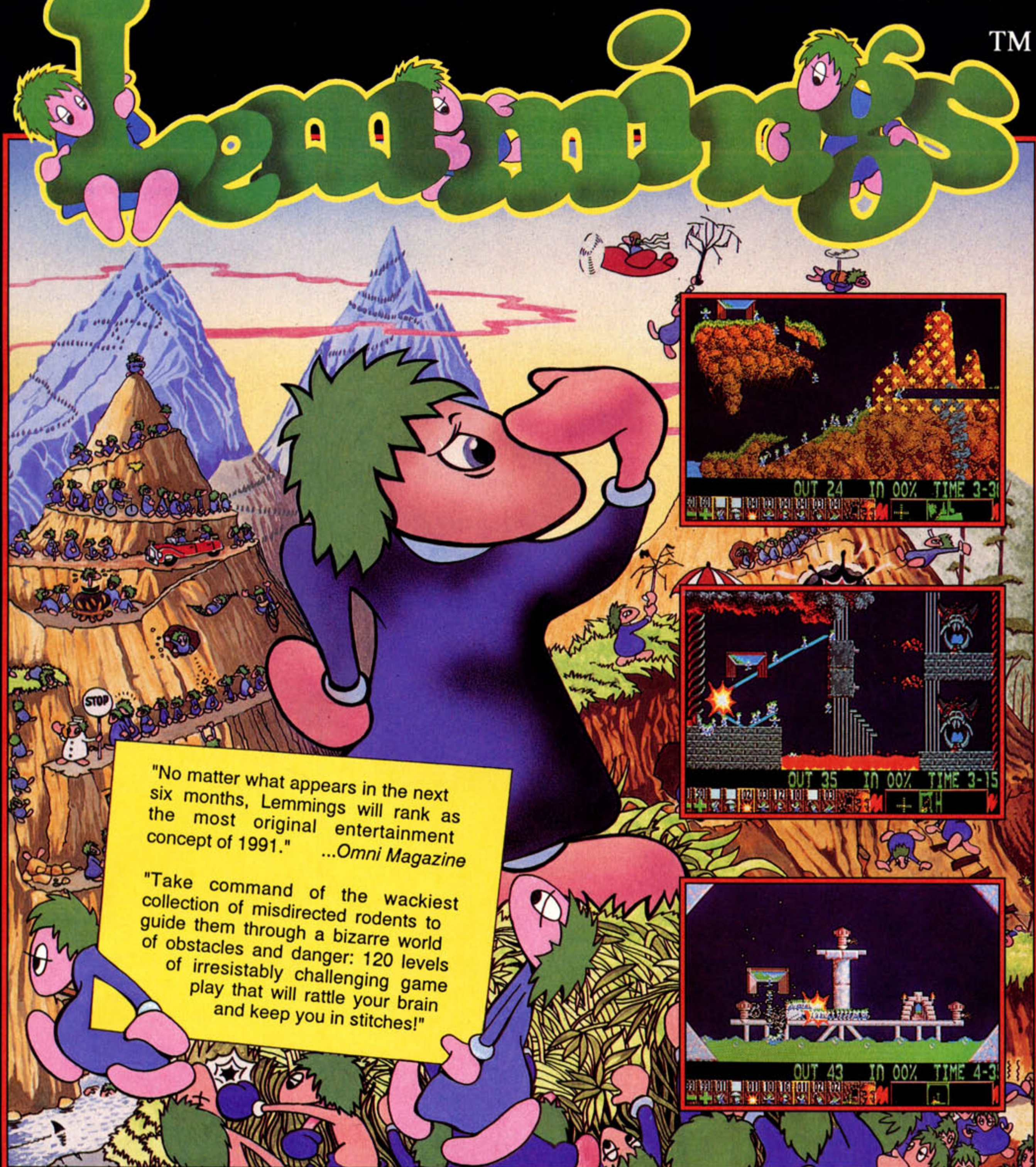


Virtual Reality / pg 26

Features

Departments

"A UNIQUE MINDBOGGLING GAME OF ADVENTURE, ROMANCE AND SALVATION!"

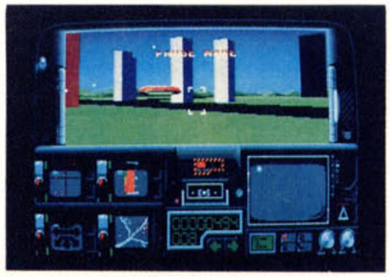


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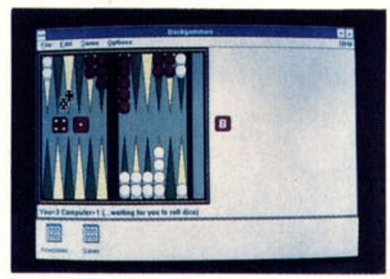
Dick Tracy Crimestoppers Print Kit



Mickey & Minnie's Funtime P. Kit



Sex Olympics



Backgammon by George!

Access
Salt Lake City, UT

LINKS: BOUNTIFUL and FIRESTONE COUNTRY CLUB: These add-on course disks not only bring additional and extravagantly detailed courses for *Links*, but they also offer the player more than just a change of scenery. Both products offer new executable files to update the original *Links* program. Then, players can head out to either one of the headline stops on the PGA Tour (Firestone) or the programmers' favorite local course in Utah (Bountiful). In either case, the views and terrain are both picturesque and challenging. IBM ($24.95 each). Circle Reader Service #1.

Accolade
San Jose, CA

HOVERFORCE: One could either consider this game an earthbound *Stellar 7* or a cyberpunk version of high speed pursuit in the next century. MetaCity is overrun with drug trafficking and bio-engineered and "enhanced" drug lords known as Alterants. The Red Wasp Unit is an elite force with the sole mission of destroying these Alterants. As a Red Wasp recruit in *Hoverforce*, one pilots the HoverKill 1000 Urban Assault Hovercraft throughout MetaCity's regions in search and destroy missions to locate and destroy Alterants. The 3-D, 256 color VGA graphics and soundboard support lend a dark, futuristic quality to this high speed, smooth-scrolling chase game. IBM, Amiga (49.95). Circle Reader Service #2.

Capstone
Miami, FL

TRUMP CASTLE II: With graphics as opulent as its namesake, *Trump Castle II* adds not only more games, but more panache than its predecessor. With digitized graphics of the Castle itself, players move from room to room in order to play such casino favorites as slots, baccarat, minibaccarat, roulette,

blackjack, "Big Six" wheel, craps and video poker. Each gambling game is competently done (again with superb graphics), although it will take a few minutes to become acquainted with the plethora of options for each one. IBM ($49.95). Circle Reader Service #3.

Disney Software
Burbank, CA

DICK TRACY CRIMESTOPPERS PRINT KIT: In the best *Print Shop* traditions, this print-kit-on-a-theme covers the hit Touchstone movie, *Dick Tracy*. Chock full of computer graphics of Warren Beatty et al, kids can make designs for police badges, wanted posters and masks to go along with the more standard fare of greeting cards and invitations. IBM ($19.95). Circle Reader Service #4.

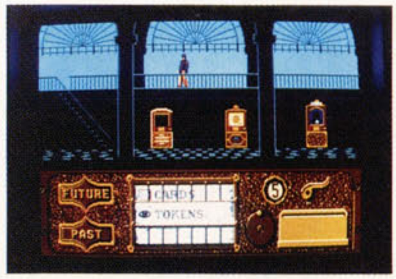
MICKEY & MINNIE'S FUNTIME PRINT KIT: Don't put those coloring pens away so fast! For ages five and up, parents might want to consider a print kit which will translate into hours of children's amusement (and reams of computer paper and dozens of printer ribbons used). Mickey and Minnie have got the graphics for all occasions (holidays, sports, school, etc.) with lots of clever border designs to go with them. Posters, place mats, invitations and greeting cards go along with six different typefaces to help kids "say it all." IBM ($19.95). Circle Reader Service #5.

Free Spirit Software
PO Box 128
Kutztown, PA 19530

SEX OLYMPICS: Free Spirit has developed an entire line of satirical (or is that satyrical) adventure games pandering to frustrated libidos. In the latest installment of Brad Stallion's adventures in the "Big Thruster," Dr. Dildo has penetrated the *Sex Olympics*. The player, as Stallion, must mount up the enthusiasm to out"score" his evil nemesis before the story reaches its climax (ahem). Unfortunately for those with a liking for the lascivious, the graphics leave a lot to be desired. Amiga ($39.95). Circle Reader Service #6.

Graphics Software Labs
7906 Moonmist Circle
Huntington Beach, CA

BACKGAMMON BY GEORGE!: Get out your *Windex* because this game runs under **Microsoft Windows**. Players can adjust opponent skill levels (although the computer opponents are not particularly sophisticated), use the doubling cube, vary the board set up, choose between mouse or keyboard inputs or use manually rolled dice in lieu of computer rolled dice. IBM ($39.95). Circle Reader Service #7.



Theme Park Mystery



Xenocide



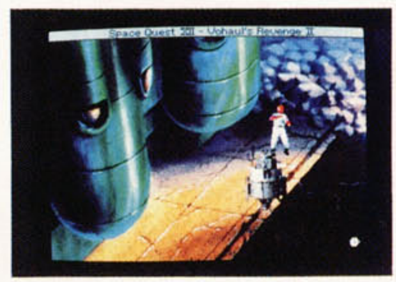
The Amazing Spider-Man



Troika



ZZT — The Object-Oriented Game



Space Quest IV

Konami
Buffalo Grove, IL

THEME PARK MYSTERY: From Europe to the US, the type of fortune-telling machine which made Tom Hanks *Big*, is back to haunt computer gamers. Magic Canyon Theme Park has been deserted, but as one's inheritance, it must be explored. The player travels through four theme worlds (like a deadly Disneyland or sinister Six Flags where everything has gone terribly awry) in order to eliminate the gremlins which haunt the park. A blend of problem-solving and arcade action are required to succeed (and a bizarre perspective on life wouldn't hurt, either). IBM, Amiga ($49.95). Circle Reader Service #8.

Micro Revelations, Inc.
Reno, NV

XENOCIDE: Four kinds of arcade action are strung together in a first-class package pitting the player against the xenomorphs which occupy the moons around the home world. The action is fantastic looking in 256-color VGA, and things move *fast*! Combine this with full sound support, and the player will be honing razor-sharp reflexes in no time. For all those who said that super cartridge-level gameplay couldn't happen on a PC, they'd better take a look at *Xenocide*. IBM ($49.95). Circle Reader Service #9.

Paragon Software
Hunt Valley, MD

THE AMAZING SPIDER-MAN: An arcade game with more strategy than shoot 'em up (Spider-Man, after all, does not kill people), this little brainteaser is in

(Continued on page 78)

Sid Meier's Latest Game Is Just Like All His Others... Terrific!

Most game designers can't afford to repeat themselves. Formulas that work so well in one game rarely succeed in the next. Sid Meier is an exception. His games, despite the diversity of subject matter, always share certain qualities, qualities computer gamers have grown to love — and demand.

Now, the designer responsible for the award-winning hits **F-15 Strike Eagle, Pirates!, Red Storm Rising, F-19 Stealth Fighter** and 1990's Best Strategy Game*, **Railroad Tycoon**, presents the high-tech, dangerous world of international espionage. Once again the subject is unique; but Sid's "magic touch" remains.



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> Computer Gaming World • May, 1990

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* Software Publishers Association

Circle Reader Service #47





TITLE:	Continuum
SYSTEMS:	IBM or compatible (reviewed), Amiga (coming soon)
# PLAYERS:	1 or 2 (alternating)
PRICE:	$49.95
COPY PROTECT:	Documentation Check
DESIGNER:	Infogrames
PUBLISHER:	Data East USA, Inc. San Jose, CA

A Good Time *Continuum*

by Matt Taylor

[Play eerie music from Golden Age television series:] *Through the magic of computers, you are entering a world of three-dimensional space, embarking on a voyage which would normally be envisioned only in your wildest dreams.... Enter into a world where walls are of substance, but little else is. Bounce off the platforms... or is it the ceiling?... and find yourself bursting through the portal before time expires and you end up perishing in the Stygian abyss reserved for those unfortunate enough to be unprepared for* Continuum.

Infogrames' futuristic *Continuum* has taken a whole new approach to flight sims by mixing in labyrinth exploration with other touches almost weird enough to merit citizenship in the *Twilight Zone*. At times, *Continuum* plays like one would expect a *Star Trek: The Next Generation* "holodeck" game to play. At other times, it could almost be said that the basic idea behind it is: "The Player is a SuperBall in a Rat Maze." One way or another, *Continuum* offers some fascinating gaming experiences.

Having a Super Ball

This maze mapper called *Continuum* is unlike any previous such offering, although this may not be immediately obvious from observing the objects on the screen. There are two different modes to challenge: "action" and "emotion." In action, players try to tally up a high score and survive as long as possible. Emotion, however, is a matter of simple exploration, without the necessity of competition against either another participant or the top-score board. Sounds like a typical rehash, not worth a closer look, right? Wrong.

First off, toss out the laws of physics and study the governing principles of the *Continuum* universe. The "Mobile" ship, which gamers "enter" and control, is equipped with left and right steering and a thruster. Again, this is standard fare as such. However, the way it travels through its environment is an intriguing experience for all ages. The goal in each room is to collect bonus items, if any are present, and zip out the window into the next area as quickly as possible. Rebounding off colored platforms is the only method of building up altitude, and they are suspended in progressively inconvenient locations throughout each of the 256 chambers. Some bounce the Mobile higher than others and, since the journey from one structure to another is precarious at best, a misjudgment means a plummet to the floor below. When this occurs, players have to seek a "grounded" square to restart the bouncing process.

A Different Point of View

The camera positions (note the plural) are a major factor in *Continuum*'s distinctiveness. As the environment is completely three-dimensional, the view can be changed to accommodate desired rubbernecking. Pressing the up and down keys results in the angle shifting in the appropriate direction. Also, a wealth of options are to be found, such as a choice of third-person (the default and "friendliest" view) or first-person perspectives. It is absolutely vital to glance every which way, since it is not immediately obvious which is the most expedient route to pursue.

Other features include a "position memorize" (temporary save which can be recalled at a penalty of one minute of precious time), a "permanent save" (available in "Emotion" mode only), a choice of Mobile shapes (weird blocks strung together in all cases, but they fit the "universe" of the polygon-filled graphics well enough), and different effects on the display (such as altering the forms from filled to wire outlines). In both modes, the map is "user friendly" and exhibits which rooms have been explored and how many prizes have yet to be collected.

Doc-U-Quest

The documentation is adequate, but mysteriously vague on some subjects, most notably the penalty objects. Although they are illustrated, their negative effects are not expounded on except for the phrases "destructive" and "energy drains." Since there is no power meter to be concerned with, what *are* these words referring to? This aviator repeatedly crashed head-on into an impediment without suffering any noticeable ill effects.

At least the bonus items are fairly clear. One grabs them in order to raise the score which, in turn, translates into extra time awards. Also, the clock winds back one minute upon passing out of a chamber.

"Playing" on One's Emotions

Of course, all mentions of time and points refer only to the "Action" mode. In "Emotion" mode, a player wanders through one of twelve areas, including: Awaken, Develop, Energize and Meditate — yes, all human emotions. In each region, a different color and song "scientifically proven to stimulate that particular area of the human psyche" predominates. Unluckily for those who are sentenced to suffer through the internal speaker's inadequate sounds (the sound board support is excellent), only one tune is available throughout the entire game (one that will probably begin eating your nerves to pieces within minutes). Fortunately, like much in *Continuum*, it can be adjusted or turned off.

Zapless Wonder

Now, for the final analysis: true action enthusiasts, this reviewer included, will doubtless find a lack of real game substance to complement an original and provocative concept. To be exact, flying a weird ship in a maze is nifty, but where's the interactive fun? How long does a flight simulator stay interesting without combat? It sounds like some sort of demented *Nintendo* syndrome but, unfortunately, it still holds true. *Continuum* could conceivably have worked without battles, but the goals are so uninspiring as to actually *detract* from the game and out-foxing the mazes gets dull faster than one would expect. With a head-to-head, modem race-through-the-maze, blast-'em-if-you-see-'em upgrade, this software would have attracted a lot more attention. As it is, *Continuum* stands as a neat new way to show off the potential of computer-simulated space travel, but it falls short in the most important department of lasting entertainment. **CGW**

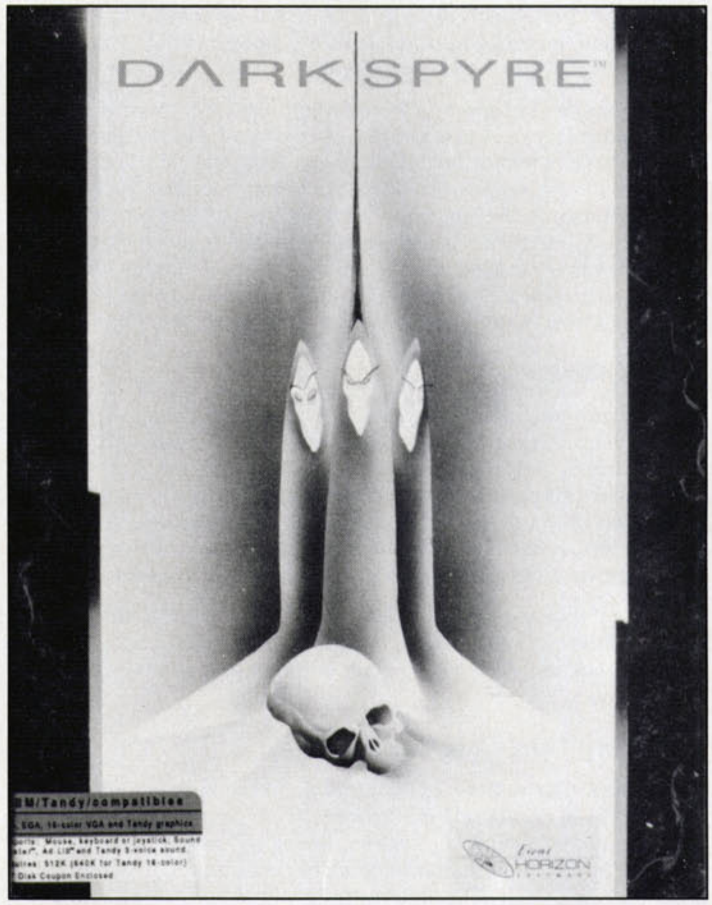
DarkSpyre

Action, Adventure and Puzzles Galore

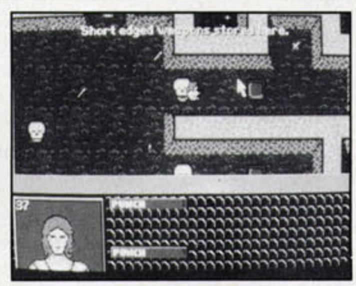
by Todd Threadgill

DarkSpyre, the cold forbidding tower of granite erected by the Gods of the Three Ways (Magic, Intellect and War), casts a sinister shadow over the face of humanity. The gods are incensed with mankind's stubborn disbelief and have left one meager chance for mere mortals to escape the aggregate wrath of the triumvirate of deities. Their messenger, a diaphanous apparition, has issued a challenge to all champions: if, within a three-century period, one man or woman could manage to enter the tower and pass the trials provided by a dozen fiend-laden dungeon levels, mankind would be allowed to survive. Now, the three-centuries-old grace period is drawing to a close. Many adventurers have accepted the challenge, only to meet bitter defeat. Time is running out, and mankind's only hope of survival rests on a lone adventurer's skill, stamina and cunning.

Such is the predicament facing the player who starts up *DarkSpyre*, **Event Horizon Software**'s action/role-playing game. Filled with challenging mazes, real-time combat and a unique graphic style, *DarkSpyre* has much to offer to gamers who appreciate a true test of their adventuring mettle.



TITLE:	DarkSpyre
SYSTEMS:	IBM
PRICE:	$49.95
COPY PROTECT:	Document check
DESIGNER:	James Namestka
PUBLISHER:	Event Horizon (distributed by Electronic Zoo, Baltimore, MD)



Building Character

Players begin their quest by creating a character. In most role-playing games this is usually accomplished by filling in a screen full of attributes, naming the character and moving on. *DarkSpyre* follows this tradition by allowing the computer to create the character automatically or giving the player full control, but it also offers something new and different. Should the manual process be selected, the computer will present the character's life story (up to the point of entering the tower) in the form of a fairy tale. During the course of the story the computer will prompt the player to fill in the specifics about the character, including name, gender, left/right-handedness and more. Each of these choices has an impact on the character's abilities and, subsequently, his or her performance in the game. This reviewer found the character creation process refreshing.

DarkSpyre's user interface is also something new. The bottom of the screen contains a "character sheet" that features a picture of the character, including readied weapons, spell books or other objects. Next to the portrait are buttons that perform specific actions depending upon the objects carried by the character (for example, if the character is carrying a sword, the corresponding button will read "SWING"). At the top of this portrait/action button area is a gray bar. By grabbing this bar with the mouse, the player can "raise" (i.e. scroll) the character sheet so that it fills the screen, much like a window shade. When the full character sheet is visible, players can view their character's stats, including armor strength, hit points, etc. The character sheet may take up as much or as little of the screen as the player wishes, but it should be noted that using too much of the screen for the character sheet will reduce the size of the window in which the action takes place. Since all of the action in DarkSpyre (including the combat) takes place in real time, it is easy for players to find their characters taking hits from assailants while they are studying the statistics display. This reviewer found that limiting the character sheet to the extreme bottom of the screen did wonders for extending the on-screen character's expected lifespan.

Runestone Cowboy (Game Play)

The dungeon levels are grouped, fortunately enough, in layers of difficulty. Most of the dungeon levels are built around fixed layouts and encounters which will, naturally enough, appear each time the player passes through them. Others, however, are completely random with the player having only a *Gauntlet*-like motivation for wandering the maze and bashing monsters: finding a way out.

In order to pass on to the next layer of difficulty, the player must locate a runestone which, in turn, is located on a specific level within a group. There are five runestones in the game, representing: Strength, Agility, Endurance, Accuracy and Talent. Alert players will observe that it is possible to reach the runestone level before completing the other fixed levels in a particular layer of difficulty (since the fixed levels appear in a seemingly random order). Nevertheless, this is not usually a good idea, since one's character will need all the experience he or she can get before ascending to tougher challenges.

Experience is, of course, gained through all sorts of actions, such as finding objects and passing from one level to the next. Yet the most lucrative source of experience points is still combat with the myriad denizens of DarkSpyre. This is probably beneficial on those population-bomb levels where creatures abound, but can be somewhat frustrating on the levels where the resident monsters are fairly sparse. The play balance with regard to encounters seems somewhat out of whack. Similarly, combat encounters can range from blissfully brief battles in which one's character literally brushes opponents out of the way to maddening melees in which the on-screen character hacks, chops, kicks and swings away at his or her foe with no visible result (other than the steady drain on one's own hit points as the enemy strikes the player's character successfully time after time). The latter gets extremely tedious, especially since the player usually has very few weapons from which to choose. *DarkSpyre* takes realism to new heights — weapons break or dull after they have been used for a time — and, at least in the early stages of the game, proficiency with magic is hard to come by. Hence, special care should be taken to beat up on lesser opponents as much as possible in the early stages of the game, since enemies become both more numerous and more formidable later on.

Each of the fixed levels features special hazards, such as giant steel balls (which can either be put to use by the player or avoided entirely — some can cause damage, Indiana Jones-style), teleporters, movable walls, magic mouths and pressure plates. The magic mouths usually have useful information, either in the form of a direct hint or an obscure riddle. The teleporters, which resemble big bubbles with a ring of fire around their edges, pop up all over the place and often serve to make mapping extremely difficult. The dungeon levels are quite large in DarkSpyre, and there is no "auto-mapping" feature, so drawing one's own maps is essential. Novice adventurers be warned: *DarkSpyre* is a difficult game. Only experienced players need apply.

In"Spyre"ing Observations (Conclusions)

DarkSpyre is a fine game, well suited to gamers who enjoy true challenges. The documentation is both thorough and particularly suited to players (like this reviewer) who like to "play first and ask questions later." The first portion of the documentation contains a brief and relatively well-written novella which does an admirable job of setting the stage for the game. Some players will lose patience with the novella, however, since it does tend to get bogged down with details regarding characters and situations that have little impact on the game.

The player interface is well thought out and obviously the result of many hours of thoughtful hard work on the part of *DarkSpyre*'s designers. Everything that could be needed by the player is right at his or her fingertips, and all commands function in a logical manner. Also, even though there is no built-in "construction set" for creating one's own challenges, the package includes a pleasant surprise: an offer for the *DarkSpyre Drawing Board*, a dungeon editor that will allow players to do just that. Clearly, *DarkSpyre* was designed by people who love to play adventure games. As the first release from **Event Horizon**, *DarkSpyre* is truly impressive. Players who are looking for a challenging mix of action and role-playing would be wise to "visit" this ominous granite locale. **CGW**

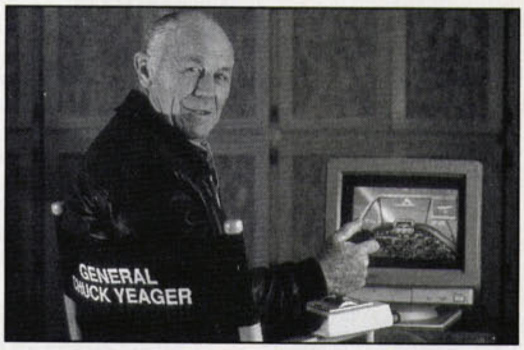
Circle Reader Service #69

Circle Reader Service #59

The Rumor Bag

by "Chip" N. Dale





It didn't quite seem right to put on both my suit and the bag over my head and head out for the Magic Kingdom in order to *work*, but there I was, strolling down the new "Afternoon Avenue" at Disneyland with families from South Carolina and Michigan staring at me as though your favorite gossip-monger was one of those costumed characters that roam those intricately detailed lanes. My publisher was off at some photo shoot with General Chuck Yeager in anticipation of **Electronic Arts**' release of *Yeager Air Combat*. I realized everyone knew about that, but I wondered how many knew that Mr. Sipe was hard at work on a book about the hot new title. Due out in the fall of this year, it will be the very first book in **Prima Publications**' new *CGW Presents* line.

A brief bit of envy caused me to pause briefly and nearly be trampled by the Baloo character rushing past on his way to the press conference as I wondered why the first book in this new line wasn't *The Best of the Rumor Bag Guy*. Of course, I quickly realized that both Sipe and Wilson are predisposed toward books that will sell and ingraciously hoped that all their books were flashes in the pan. Speaking of *The Flash*, I also hoped that **Bethesda Softworks** would do a really nice job in bringing the crimson crimefighter to the computer screen.

I reached the press conference where Mickey Mouse was joining Chip and Dale in opening the **CapCom Videocade**. I watched the festivities and commented to the **CapCom** executive standing beside me that licensing seemed to be particularly successful in the video game market these days. I told him I had just found out from a friend at **Hanna-Barbera** that **Taito** was getting ready to announce video games based on *The Flintstones* and *The Jetsons*. He smiled knowingly and told me that **CapCom** was working with Disney on a number of future products. In fact, he noted that his company was working on two original concept **Game Boy** titles (one with Mickey Mouse and the other with Roger Rabbit) and had two hot **Nintendo Entertainment System** titles slated for July release (*The Little Mermaid* and *TaleSpin*).

Then, he told me to make sure I visited "The Haunted Mansion" before I left the park. After all, he implied, publishers of floppy-based products believe in licensing, as well. At first, I thought he was talking about **Accolade**'s *Elvira* product that had been so successful for them, but then he told me to "look across the ocean." Okay, so even a rumor guy can figure out a riddle, on occasion. He meant **Ocean**'s new *The Addams Family* license.

I thanked the executive and left soon after the metallic balloons and confetti covered the participants in the grand opening. I briefly glanced at the painted snow at the top of the Matterhorn and, it being a warm spring day in Southern California, wished that it were real. A tourist commented that the "phony snow" made you feel like skiing or playing hockey instead of standing in line on a spring day. Hockey, eh? I agreed with him and wished I were heading back to the office to play **Electronic Arts**' *NHL Hockey* on our **SEGA** Genesis machine. If there was one thing I knew for certain, it would contain plenty of action, since it was being developed by **Park Place Software** (developers of *John Madden Football* on the **SEGA**) and produced by Rich Hillemann (an amateur hockey player and enthusiastic fan).

It wasn't a very long walk from the Matterhorn to Main Street U.S.A. Walking down Disneyland's Main Street always gives me a nostalgic feeling and nostalgic feelings often set me to thinking about the early days of *Computer Gaming World*. I remembered all those back covers dominated by **Avalon Hill Microcomputer Games** products and wondered what had happened to the computer game division. So, in honor of those memories, I stopped at a pay phone near the City Hall and gave **Avalon Hill** a ring.

I'm glad I did, because it seems that they are still working on a computer version of their tremendously successful board game, *Third Reich*. I had thought the project was cancelled. Then I found out they had some new surprises for me. In addition to *Third Reich*, they're working on a fantasy/strategy game for the computer with mechanics similar to the board game *Kingmaker* and a new wargame based on the Peloponnesian War.

I hung up the phone and marched triumphantly out the main gate to the musical accompaniment of Disneyland's own marching band. At least I had some good news to share with computer wargamers. Now that **Electronic Arts Distribution** doesn't plan to distribute **SSI**'s *wargames* anymore, good news for wargamers is as rare as...well...as rare as tears at Disneyland. **cgw**

Gamers May Be Drawn to This

The Magic Candle II:

by Johnny

Sneak Previews are not designed to be reviews. They are feature articles based on "works in progress" which CGW's editors have deemed worthy of early coverage. These articles are not intended to provide the "final word" on a product, since we expect to publish appropriate review coverage when the game is completely finished. Sneak Previews are designed to inform our readers about upcoming games and generate excitement about the "state of the art" of computer game design in general.



In 1989, *The Magic Candle* won honors as *CGW's Fantasy Role-Playing Game of the Year*. Even though the graphics seemed like a hundred games we'd seen before and the game itself had limited distribution, *The Magic Candle* still sparkled with enough fresh design concepts to grab plenty of critical nods. Encounters with non-player characters had significance; characteristics were restored via mushrooms (a renewable resource); party members could be assigned to complete tasks while the rest of the party went adventuring and an elaborate (most importantly, non-automatic) ritual as its conclusion to lead players into the most satisfying finale for a CRPG to that point in time.

Now, in *The Magic Candle II: The Four and the Forty*, Ali Atabek and his crew are again out to capture the imaginations of gamer and critic alike with an improved version of the system. If one's idea of gaming is reduced to flashy graphics and elaborate sound support, he or she is not likely to be drawn to this second flame. If one is looking for deep and satisfying game play, however, one's leisure time will be totally consumed by a burning desire to play this game.

A Brighter Flame

Nearly everything possible has been done to help players suspend their disbelief and get totally involved in the story. There are no generic towns or villages in the game. Every inhabited locale has a different layout and look to it. Non-player characters who have a potential impact on the story have unique icons to distinguish them from characters that are simply there for "atmosphere."

In fact, some non-player characters have vital information that changes, based on what has been accomplished during the game. They may advise the party one way *before* they have completed a task in a mini-quest, but they will treat the party differently and offer different or additional advice *after* the task is completed. Also, non-player characters who are not feeling favorably disposed to the party can be charmed into cooperation by using magical means at the party's disposal. In short, the conversational element of encounters has more depth than one finds in many CRPGs.

In addition, the game contains thirty-one non-player characters who *can* join the party. Some will only join as a result of certain events, while others may join for a little while and leave unexpectedly (the Loyalty rating is very important with

Sequel Like Moths to a Candle

The Four and Forty

L. Wilson

regard to these "defections"). Even the king will offer to join the party at one point (because of his personal motivation). This all resonates well for "believing" in these characters.

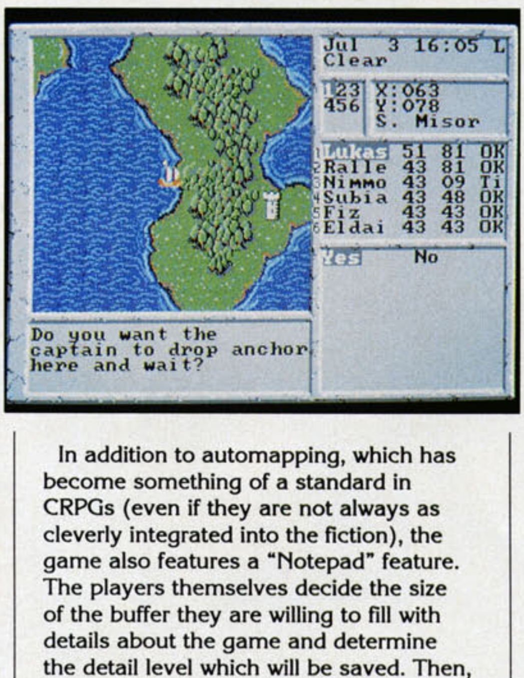
Beyond this, players not only get to assign their party members to tasks (forging weapons, tailoring clothes, etc.) as in *The Magic Candle*, but they also get to add substitute adventurers to the party while the original adventurers are accomplishing their tasks. This is an advancement over the first game because the earlier product required parties to travel across the game world in a weakened condition (i.e. with less than a full roster) until the members on assignment were able to rejoin them. Now, parties can adventure with full rosters and rendezvous with their fellows at a later time.

Since up to thirty-one adventurers can be "on assignment" at a given time, this feature, which allows for time management of the party, may end up serving as a subgame for many role-players. They may end up with a goal of enriching the party as much as possible and get so involved with trading, training and earning money that they let the plot line become a side issue. This, too, smacks of realism. There are certainly plenty of individuals in this world who *could* change social conditions who opt not to change them.

The "Play" Within the Play

Yet, providing a credible game world is not the sum total of the illumination provided by *The Magic Candle II*. The second impression one receives of the game is that the designers have spared no effort in making the game easier to play than its predecessor. Automapping can be accessed with no resource assessment at friendly locations. Then, to enhance the mystery of hostile and unknown locales, one must use a Blue Maramon pearl in a map flask in order to automap in these territories. Yet the automapping feature is there if the gamer wants it *and* it fits logically into the game's fiction, as well.





In addition to automapping, which has become something of a standard in CRPGs (even if they are not always as cleverly integrated into the fiction), the game also features a "Notepad" feature. The players themselves decide the size of the buffer they are willing to fill with details about the game and determine the detail level which will be saved. Then, players can either save all their conversations and discoveries to disk or print them out in order to both clear the buffer and keep the data for safekeeping.

As if the "Notepad" feature were not helpful enough, the game also keeps on record up to nine pages of character data, including skills, resources and magical spells. The data can, in turn, be accessed via one word commands like "Inventory," "Search" and "Magic."

Finally, players who like multiple save positions and resent having to be in or out of particular locations in order to save the game will appreciate the fact that they can have up to eight distinctive (and annotated) save positions *and* they can save anywhere and anytime (except during combat).

Candle Opera

In our last episode, our heroes discovered that the four and forty guardians of The Magic Candle of Barbezza, a magical construct, had disappeared. In the course of the adventure, the good guys managed to successfully complete the arcane ritual known as the "Zirvanad" which, in turn, restored the wax prison of the embodiment of evil, saving the known world in the process.

Now, in *The Magic Candle II: The Four and the Forty*, our heroes have the opportunity to right the cosmic balance, once again. Or perhaps one should say that they get to *finish* the Herculean task of righting the balance which they began in the original. After all, the player never quite found out what had happened to those guardians in the last adventure. Now, it appears that the guardians themselves are being imprisoned in four and forty black candles (a sort of reverse poetic justice). This provides the "conceit" for a larger and more varied adventure in which the player's party: explores a considerably larger world (the continent of Gurtex); discovers new spells (Courage, Summon [Beast], Betray, Acidball, Drain, etc.); and assists the Children of Light against the Forces of Darkness in a battle of appropriately apocalyptic scale.

Tapering Off

In summary, *The Magic Candle II: The Four and Forty* is a continuing refinement of its predecessor. *The Magic Candle*. As the latter placed emphasis on characterization and ease of play, so does the former carry on the award-winning tradition. In what we have seen thus far, it is even more extensive, well-written and balanced than the original. **cgw**

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The essence of submarine strategy has always been stealth. From the time that the submarine was first developed for war, stealth has been its single most lethal weapon. Ill-armed in comparison to its floating foes, the submarine maintains an important place in naval warfare. (In WWI the battleship ruled the waves, in WWII it was the aircraft carrier and today, the submarine is the queen of the seas.)

Welcome to Sub School

The first essential thing any submariner must learn is the fundamental capabilities of the platform, or boat. These include:

- **Speed:** Maximum speed, acceleration, handling (turn rates).

- **Cavitation curve:** Cavitation can be compared to "spinning your wheels." It creates noise, but doesn't get one there any faster. The deeper the run, the faster the speed without cavitating since the pressure is greater. A cavitation curve is a graphic representation of speed versus depth showing when the boat will cavitate.

- **Test depth:** The maximum recommended depth (i.e., the depth one starts praying at).

- **Crush depth:** Theoretical depth of implosion (i.e., the depth where praying ceases to help).

- **Periscope depth:** The depth at which the periscope sticks out of the water, but the boat doesn't.

Stop, Look and Listen

Submarines use sonar to find their targets; it works best when the sub is being quiet. Sonar works by means of reception and analysis of sound in an aqueous medium and is based on some very simple precepts. The first is that sound travels more effectively in a denser medium. Since water is denser than air, it follows that sound travels better in water. Also, sound travels in waves. If one were to drop a pebble in a pool of water, he would notice that the waves start bigger and more tightly together at the center,



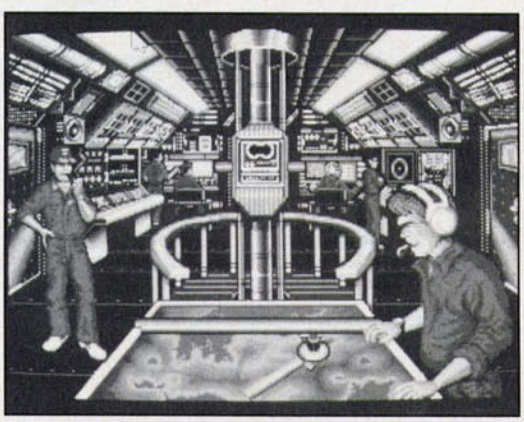
The Hunt for Red October

gradually diminishing in size as they expand outward. The third principle is that soundwaves "bounce." Using the pebble example, when waves hit the side of the pool, they rebound off the denser object.

Baffled

An easy way to think of the submarine is as a giant directional microphone. In the sonar dome, which is in the nose of a submarine, are many sensitive microphones. Naturally, the best way to find the target is to point the microphone all around and to listen quietly. Being directional by its very nature, the sonar system does not hear well aft of itself. Also, the major source of noise generated by a submarine is located in its stern (where the propulsion system is).

Therefore, it follows that the best place to hide from the enemy, while optimizing one's ability to get an accurate solution,



688 Attack Sub

is to stay in their baffles. ("Baffles" encompass, approximately, a 90-degree arc directly aft of a ship). Being in another ship's baffles allows a submariner to refine his firing solution while remaining undetected and also allows time to guide friendly weapons while the target turns to bring his tubes to bear. "Clearing baffles" simply means turning to listen behind oneself.

Being Dense

"Layers" are areas of cooler, denser water that exist at certain depths. A layer can be compared to an opaque window; one can see through it, but not as well as clear glass. Layers act as a partial sound barrier, since sound bounces off denser mediums. While that may hamper the search for others, it is a useful masking tool. A knowledge of the depths of layers is essential.

"This Is Only A Drill..."

Since other submarines are the major threat, apply these lessons in the following exercise: A player receives intelligence that an enemy submarine is in his patrol area; orders are to sink it. The player's sub is currently travelling at 8 knots, on a heading of 000 degrees, depth 350 feet. There are no contacts on sonar, a layer is located at 200 feet and the charted depth of the ocean floor is 1600 feet. Tubes 1 and 2 are loaded with Mk. 48 torpedos, the tubes are flooded and outer doors are closed.

Now, break the engagement into parts. The first part is called the *detection phase*. Here, one must configure the boat to listen as quietly as possible. Start by pointing the microphone around. Order "left five degrees rudder" and clear the ship's baffles.

Nothing.

Returning to base course, one might think that the enemy has found the player's submarine first. Order "five degrees up bubble" and come to 210 feet. Now that the player's sub is close to a layer, it can be used to evade if necessary. Perhaps a short excursion to 180 feet might be advisable to see if the enemy is above the layer, and to throw off any firing solution they might be calculating.

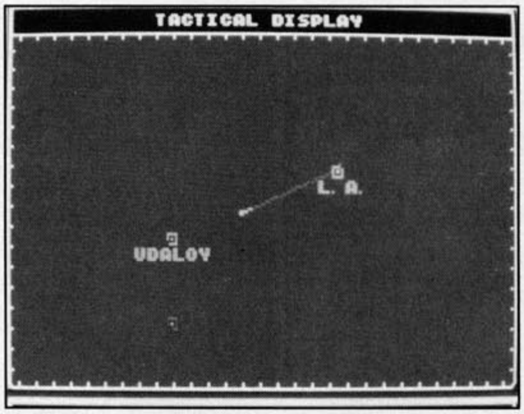
Order the diving officer to come to 180 feet and feel the boat respond. Clear the baffles again.

Still nothing.

Confidence increasing... Order a course change to 090, toward the heart of the patrol area, to run a brief leg before coming back down to 210. Change depth to 210 and clear the baffles again. The sonarman reports a contact at 235, designated Sierra 1, no classification. Order a course change to 235 and focus the listening on the faint contact there. The sonar "supe" reports it is a submerged contact of unknown class. The detection phase has ended and the *tracking phase* has begun.

Adjust the Tracking

Quietly observe the quarry as sonar feeds information to the fire control console and wait while the solution solidifies, with confidence in the solution rising. The target is moving north to south, so maneuver to intercept his track. Slowly maneuver into his baffles, solution steadies and watch the opponent for any sign of aspect change. If he were to clear baffles, a short excursion above the layer would prevent detection at this critical juncture. With the solution entered, the *attack phase* begins.



Red Storm Rising

The weapons officer reports weapon status, so the player rubs the lucky zippo in his pocket. Order firing point procedures, matching bearings and shoot. One's ears feel the inrush of air from the weapon's launch as fire control reports the weapon running, wire good.

Adrenalin Rush

The target is slow to react, but react it does. It drops countermeasures and changes course, depth and speed. Order the weapon steered to the target zig and wait for the enemy snapshot that is sure to follow. The target brings his tubes to bear and launches. It's too late for him, but he would like some company on the ocean floor. As the torpedo acquires the target internally, order the guiding wire cut.

The sonar supe reports a torpedo heading in your general direction. Drop countermeasures, change depth to get above the layer, change course to a perpendicular of the inbound torpedo track and pick up speed to 12 knots. The sonar supe reports the player's weapon's impact; the incoming weapon searches unsuccessfully, runs out of fuel and dies.

Secure battle stations and go to radio to prepare a report — mission accomplished. Just seven days to go before being relieved on station and going home. Seven more days of coffee, stale air, rehydrated vegetables and powdered milk. Then into port with a broom on the mast: "Patrol area swept clean." **cgw**

Reach Out and Crush Someone

Those wishing to place their own (free) ad need only send us a postcard (or use the *Notes* section of their RID card), letter, fax, or E-Mail, etc. The ads themselves should serve as reasonable examples as to how to write your own. However,

- Include a brief description of the types of opponents and games you are interested in playing. Games being played other than "direct by modem" *can* be listed (trading save game disks, meeting on a BBS service or even face-to-face).
- At least one (possibly more) telephone number(s) must be included. *Do not forget the area code* and mention whether they are Home, Work or Modem numbers.
- Include your city and state so that people who call you will have both: a) a clue as to what time zone you are in and b) recognize it when they see it on their phone bill.

We reserve the right to edit all Opponents Wanted ads to our standards of taste.

Networks

The Sierra Network from Sierra On-Line brings people together "just for the fun of it." For a flat fee of $11.95 per month with unlimited usage, players gather to meet and play (or watch others play and "just kibbutz" during) real-time games of cribbage, hearts, chess, checkers, backgammon and bridge. Using an interface one's grandmother could learn with NO instruction whatsoever and featuring the quality gamers have come to expect from Sierra, the network is worth exploring. For more information, call (800) SIERRA-1.

CompuServe is the first international information system to offer three unique services specifically for modem gamers:

Modem Games Forum (sm): Discussing any and all aspects of games that support modem play, the Forum features an electronic bulletin board for message correspondence, data libraries for file exchange, and conference rooms for real-time interactive discussions. Type: GO MODEMGAMES.

Challenge Board (sm): A directory of modem game players, participants profile themselves so other gamers can search for them as opponents for most commercial, public domain, and shareware games that support the play-by-modem feature. Type: GO CHALLENGE.

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If you are not currently a CompuServe subscriber, you can join by calling (800) 848-8199 and mentioning that you are interested in Modem Gaming.

For a good dogfight, contact Mike "Moondawg" Weksler in the Modem Games Forum or MTM Lobby on CompuServe at [76711,27]. F-16 COMBAT PILOT or KNIGHTS OF THE SKY.

A computer modem club is forming in the Nassau County area of Long Island, NY. Organized competitions in strategy and simulation modem games will be arranged. Interested parties should contact South Shore Computer Modem Club, PO Box 017, Baldwin, NY 11510.

Bulletin Board Systems

Wargamers Addicted to Strategic Play ("WASP") invites you to call the Wizard's Tower BBS, home of the Modem Warriors. Tournaments and opponents for COMMAND HQ, MODEM WARS, 688 ATTACK SUB, KNIGHTS OF THE SKY and more. Find an opponent at (901) 757-2711 (2400,8,N,1), which is the Memphis, TN area. Mention this ad in *CGW* and get access to the WASP message base!

By Area Code

Avid modem gamer seeks opponents for 688, COMMAND HQ, TANK, KNIGHTS OF THE SKY or F-16 COMBAT PILOT. Call Steve Pottash in Philadelphia, PA at Work-(215) 877-3895; CompuServe: [70032,3210].

Confrontation sought for modem play of COMMAND HQ, EMPIRE, et. al. Will face-to-face other computer wargames including BATTLES OF NAPOLEON, ACTION STATIONS, REACH FOR THE STARS, GENGHIS KHAN, ANCIENT BATTLES and many more. You name it, I'll play it. Contact Bill Whiteford (Denver, CO) H-(303) 757-7247.

Veteran computer gamer seeks opponents for COMMAND HQ, EMPIRE and other computer games. Northern Rhode Island / Southern Massachusetts area preferred. Call George Cunningham at W-(401) 726-3102 or H-(401) 421-5800.

Modem opponents wanted for POWERMONGER. Will trade files for EMPIRE or OMEGA (Atari ST) by mail or modem. Call Paul Schwartz (Toronto, Ontario, Canada) at H-(416) 461-8739.

COMMAND HQ opponent sought in local area code. Call George (Dayton, OH) at H-(513) 275-2550.

Local MODEM WARS players sought. Also POPULOUS, POWERMONGER and others. Call Andy (Phoenix, AZ) during late evenings at H-(602) 482-0921.

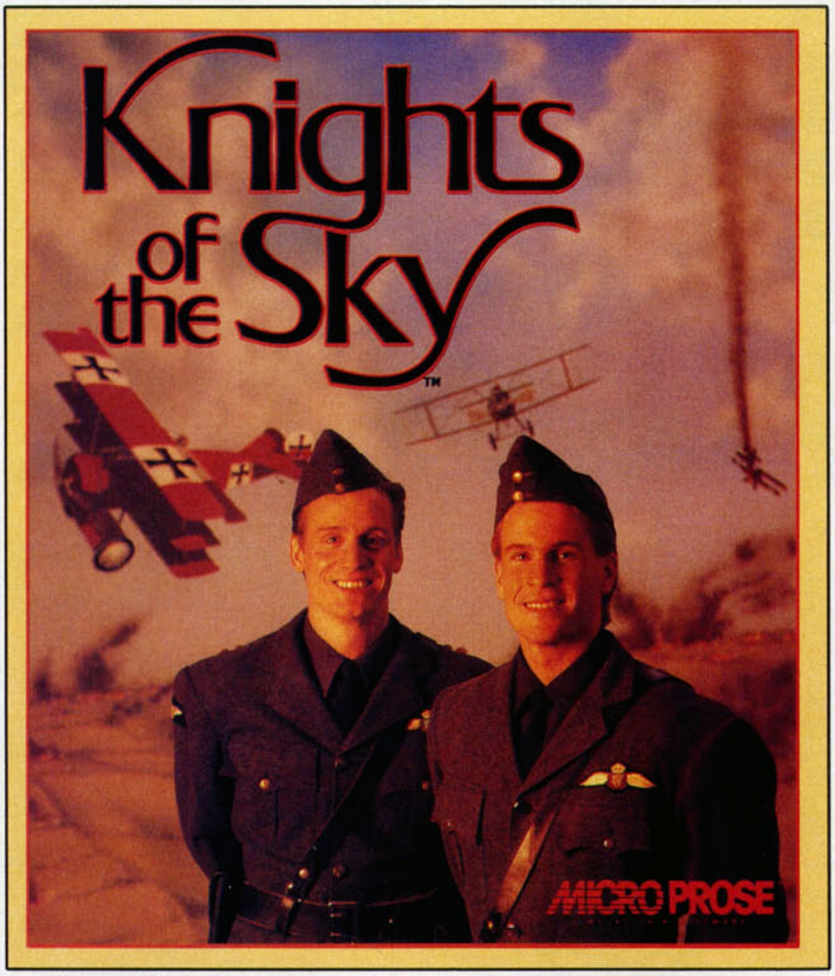
COMMAND HQ opponent sought in local area code. Call Chris (Boston, MA) at H-(617) 262-4301.

Seeking an opponent to play COMMAND HQ by modem. 815, 708 and 312 areas preferred, but will play other area codes on Saturdays and late at night. Contact Keith Brown (Elgin, IL) at H-(708) 888-3753; W-(708) 695-2999; Fax-(708) 695-2177.

Serious gamer seeks opponents for 688 ATTACK SUB or FALCON AT. Call John Tran (Laguna Niguel, CA) at H-(714) 363-1235; Modem-(714) 363-1235. Locals preferred. Available evenings and weekends.

Veteran Warriors wanted for the following games: FALCON 3.0, AVENGER A-10, COMMAND HQ, KNIGHTS OF THE SKY and MODEM WARS. You can reach me on GEnie [M.Dultz3] or call Marc Dultz (Bayside, NY) at H-(718) 465-3292 after 9pm EST. Be sure to bring parachutes and fire extinguishers!

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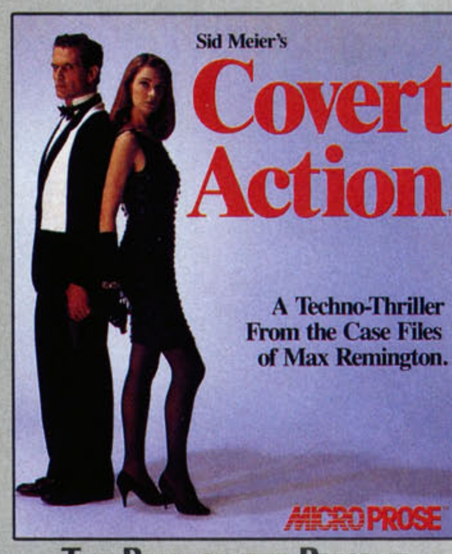




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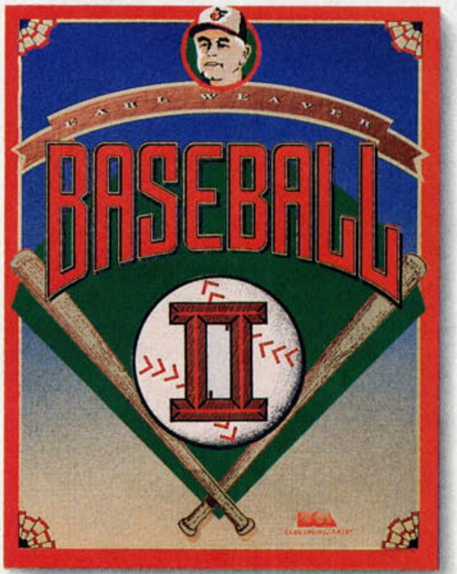
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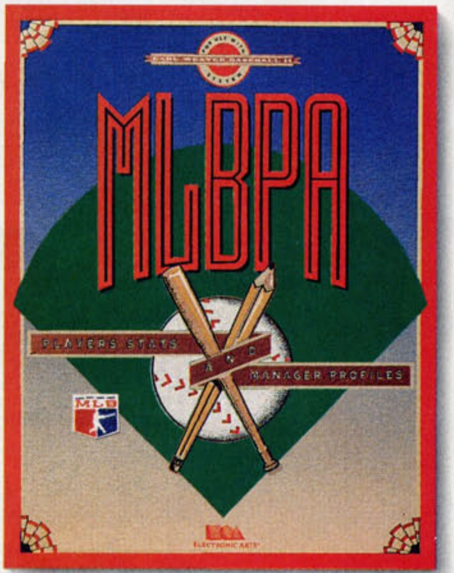
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In fact, Weaver II is the first game system ever to combine stunning animated baseball action with actual Major League stats. Producing what definitely is the Holy Grail of the diamond set.



With actual, professionally rated big league managers, you experience every rich detail and subtle wrinkle of the game.



All the 1990 players and profiles on every manager based on 60 individual ratings. Updated annually.

Just ask *Fantasy Baseball Magazine:* "Fantasy and computer baseball fans have been searching for one game that has it all—Weaver II is it; it will appeal to the fantasy-baseball fanatic as well as avid arcade gamers."



Talk about taking you out to the ballpark. Weaver II comes with all 26 stadiums plus historical landmarks like the Polo Grounds and even some outrageous fictional parks.

Finally, a Game that Covers All the Bases.

Weaver II is simply a more animated game of baseball. Over 100,000 frames of animation. Giving you something we call perfect baseball physics. Instead of bush league canned sequences.

Which means a nubber off the end of the bat will crawl down the third baseline. Just like real life. Balls bounce differently from grass to turf, from park to park.

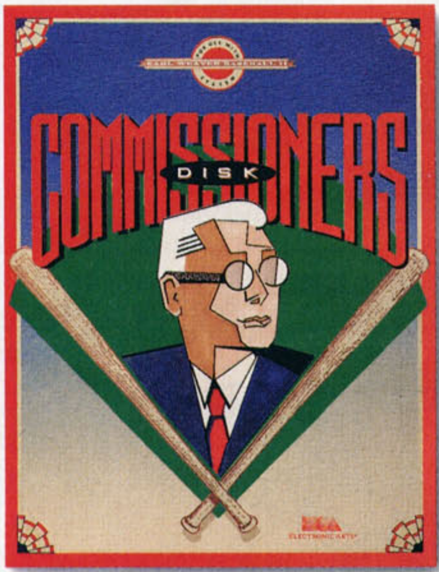
We have every one of the 26 current ballparks, famous historic parks, even six fantasy ones. And every diamond's a gem. With real dimensions, real characteristics.

So you can conquer the Green Monster. Get blown away by Candlestick's winds. Steal home in the home of the Bronx Bombers. With unlimited camera views, instant replay, and support for 256-color MCGA/VGA graphics, you get better coverage than any network.



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Now you can be the baseball's Big Cheese. Set up leagues, draft players, even build your own stadium.

baseball system ever for yet another reason. We play baseball completely by the numbers. All the 1990 stats for every Major League player.

You can download current player stats updated weekly. Accumulate, edit, and print player stats for virtually any category. Or save boxscores.



Play against the biggest hot dogs in the game: Jose, Kirby, Darryl, Boggs, Gwynn, Brett and all the rest.

Every hitter/fielder also comes with 50 stats and ratings. Every pitcher, 30 stats and ratings. Including finer points like flyball/groundball ratios for batters and pitchers and player durability.

Nobody offers this combination of ratings, flexibility, and sheer number of sorted lists. And while this certainly enriches the action aspect of Weaver II, the game is equally engrossing playing with stats only. Generate and then autoplay schedules with multiple line-ups and pitching rotations. Or play a game in under a minute in superfast simulation.

Of course, this game also comes with one of baseball's most prized characters: Earl Weaver. One of the winningest managers ever to kick dirt all over an umpire (owner of two Series rings, but you knew that already).



From your full screen batting perspective, you can see every seam of a pitched ball. Except if it's a Nolan Ryan heater. The unbeatable pitching includes 9 different pitches to 18 locations.

Play on Earl's team. Manage against him. You get profiles on every manager based on 60 individual ratings. Including frequency of calling bunts, steals, hit and run, and pinch hitters.

You can even ask Earl for advice anytime. As you'd expect, he's got an answer for just about any situation.

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Some people aren't satisfied with just being a manager. That's what our Commissioner's Disk II™ is for.

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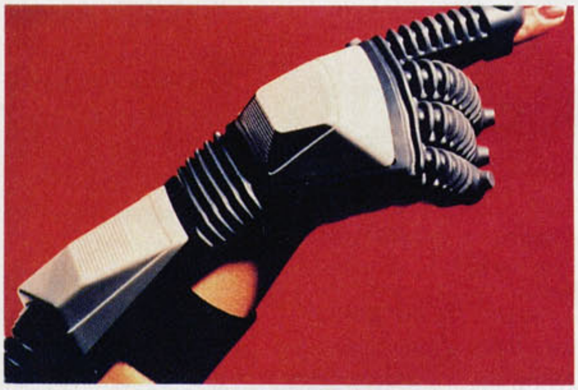
Virtual Reality

by Paul Rigby









March at the UK's Wembley Conference Center saw the world launch of **W Industry**'s two fully operable virtual reality (VR) systems, including the *world*'s first VR leisure system. Dr. Jon Waldern was the host — sensibly so, because the company's first VR system was built in Jon's garage (shades of Apple).

The main VR system (displayed at the launch) comes in three parts: the Expality computer (a true multiprocessor); the Visette helmet (which not only handles visuals, but also incorporates head tracking plus quadrophonic, CD-quality sound) and the Animet software that binds the Expality computer together.

The VR system comes in two forms: the stand-up (a portable affair which allows one to walk around the room) or sit-down systems (where one is seated in a console bath-chair). There are a number of tools one can attach to the stand-up system, including a VR glove and a joystick that enables one to manipulate objects in 3-D space.

There is also a pressure-sensitive force-feedback glove under development. It will give one the sensation of touching things and works on compressed air. Another tool WI have under development is an exoskeleton. It would fit to the outside of the body and track one's position as one moves through the room. When the system is networked, other people wearing exoskeleta would then be seen as computer renditions in "robotic" form.

Within the Expality computer, there are actually five processing units, a true multiprocessor system. The Commodore A3000 operates the I/O and sound chip, while two Texas 34020 and two 34082 RISC chips run graphics efficiently enough to produce about 30,000 polygons per second. The chips run at 33mhz but the combined MIP (million instructions per second) performance is through the roof.

As much as the two systems impressed all and sundry, this reporter did have two criticisms. The VR graphics headset uses LCD technology. During the launch, the sit-down model's Visette display seemed a little fuzzy.

According to Jon Waldern, "Included in the lens is a special new substance that we're still working on. That substance was fitted to the system that was shown. Unfortunately, they were not fitted very well. It's like getting a lens and moving it

out of focus. A number of them were out of focus. Much apologies for that, but they had moved in transit from the factory to the show."

In addition, the air combat game *VTOL* was poorly designed in that this reviewer did not need to turn his head to look at aircraft behind him (surely the whole thrust of VR?). Quite simply, they all flew in front whereupon they were downed.

Waldern stated, "In the first two levels they are in front of the player, but after that they pull back quite sharply and behind. Then the player has to start viffing, etc. You were only in [at] Cadet level. Things become more difficult in Ace level. Obviously, we have to balance that with people coming into the system who just want to hit something."

In coin-op arcades, the cost is expected to be about £1.00 per play (ca. $2.00)) with three levels of difficulty to choose from.

The other sit-down VR game on display was *Battlesphere*. *Battlesphere* is an interactive arcade game in which players see each other in the [virtual] world. Each player can take the others on and can communicate by using microphones built into the helmet. So, a VR arcade center is something that is definitely expected in the future.

In use, the sit-down model made one feel part of the movie *Tron*, as though one were really trapped in a computer game! Wherever this reporter moved his head, he saw computer generated graphics displaying different parts of his aircraft, bogies and atmospheric scenery — weird. The helmet uses a head-fit system called "Erglock" ("erg" for ergonomic, not the sound people make when putting it on) that adjusts to various head sizes, although one will be aware of a front-heavy sensation due to the LCD technology mounted in the Visette. While this reporter felt relatively comfortable in it, he did hear negative comments from people who wore glasses.

Dr Jon Waldern was very enthusiastic about the possibility of multi-player VR games (such as *VTOL* and *Battlesphere*) because "...you can get mutual interaction and multi-play capabilities that turn it into a type of interactive cinema."

Does Jon envisage a home entertainment model?

"We are working on one. It will be available sooner than a lot of people think."

Production of the arcade sit-down model will soon reach 5000 units per annum and will retail at about £20,000 each. With more health and safety research, a stand-up model could be introduced into arcades.

However, WI's purpose is not simply to develop hardware. They are also employing their own game developers in recognition of the fact that games drive the hardware. "WI has our own in-house developers. It has taken a long time to build up the necessary quality. Licenses will be issued to software houses once the user base increases, however. I see games production reaching about 2 per quarter, using new types of genre that benefit from VR."

As an example of the games **WI** is working on, Jon divulged that a *Dungeon Master*-type game was under development for the stand-up model. One can safely wager that *this* writer, for one, will be first in the queue when *that* game is released! **cgw**

Air Mail From the Front

Tactical Tips for Red Baron

by Gary Lail and Paul Nielsen

The following purports to be a transcription of a letter from a pilot on the WWI front lines to his brother who had just joined the Royal Air Force.

My dear brother Andrew,

I just got the word that you joined up to fly fighters. You always knew where to find the best food. I'm sure you'll be a good student in the training school in England but here are some tips that they didn't tell me. Maybe they didn't know then, but these lessons have been learned by watching chaps buy the farm.

Start out slow! New pilots have a tendency to over-control the aircraft. Spend as much time as your commander will allow on 'non-career' missions. Play with the plane. Get to know it so that what it can do becomes intuitive. A pilot's airplane can be a self-destructive tool if he doesn't know its limitations. Some planes are hard to stall and other stall easily and quickly. Study the plane specifications in your technical manuals and memorize the worst and best characteristics of each plane.

Above all, watch out for the Fokker DR-1 triplane! I've never seen a plane so nimble and it climbs like a flare. You have to fly slow in combat in order to turn as fast as the Fokker. But, as soon as he tries to climb for an advantage, you should be able to hit the throttle and outclimb him!

Be careful on our own Camel. I think that it stalls too easily. In fact, if you should bank too steeply, you are likely to go in a death spin.

The best of our planes, at least in my humble opinion, are the Sopwith triplane, Snipe, and the SAE-5. I just made Captain and fly a green Snipe myself.

Never go head to head with the enemy fighters! It works sometimes, but if you want a long and enjoyable career, it's best to shoot them from behind.

Once you're behind the kraut... do not get in a pendulum game with him, swinging relentlessly back and forth. Instead, use the rudder more to kick the tail of the plane around while keeping the wings as level as possible. This type of flying gives a you the edge when the enemy makes an evasive maneuver.

And don't melt your machine guns! My first three missions I ruined two guns! So fire them in a short burst, pausing for a second or two between bursts. This tactic will save you time trying to unjam the guns — and besides, it's pretty useless to be up there if you can only be shot at!

If you should happen to get wounded — and most pilots get at least a couple flesh wounds — don't panic! Dive toward friendly lines at as steep an angle as possible and land quickly. Once on the ground and stopped, escape your plane or you may still be strafed. You won't complete the mission but at least you will be around to fly another one later. I've used this bloody abort method twice — don't tell Mother. Its not really that bad; it's one of the best ways to meet nurses.

Now for some details...

Balloon Busting: *A tactic I have found useful is to throttle up all the way and quickly get one or two balloons up in smoke. If done quickly enough, the defending fighters won't have enough time to get on your six and set your tail on fire. I can usually get two, sometimes three balloons before the enemy can*

even get off a single shot. Beware of the flak during these missions, though. It can be as deadly as the enemy fighters.

Recce [recon] and Bomber Escort: The same tactic applies here as with the balloon busting. Throttle up all the way when the enemy fighters are in sight and get them before they get your recon or bomber. If need be, get right on their tail and scare them off the recce or bomber and then go in for the kill.

Patrol: When the enemy fighters are in sight, give full throttle and angle your plane about 45 degrees right or left of them. This gives you room to turn around and get behind the enemy. Once in the chase, throttle back about two or three notches.

One of the most dangerous times in your career will be when you get transferred. You'll be flying with new guys and in a new plane. It's easy to spend your time getting settled in, but don't. I've seen too many good pilots get transferred, start to believe they're hot stuff and get killed. Instead, fly several practice missions with your new plane. Get to know it!

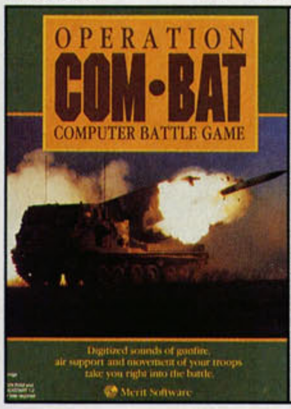
Well, I go on duty in a few minutes. So, good luck! Hope to see you when you get over here. By the way, I'm hoping you'll learn as many aerial tricks as you can. That way we can join an air circus together when this bloody war is over. I don't want to go back to the factory.

Your brother in blood and in the air,
David

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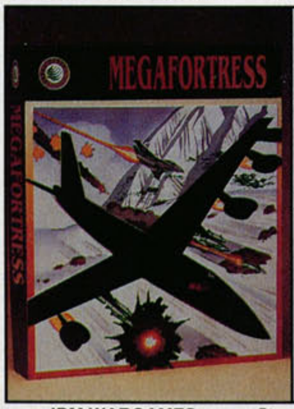
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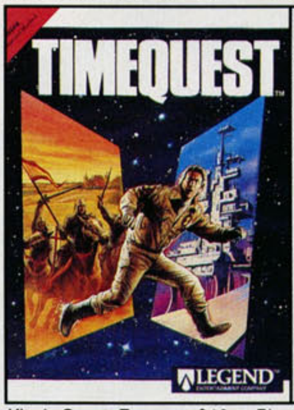
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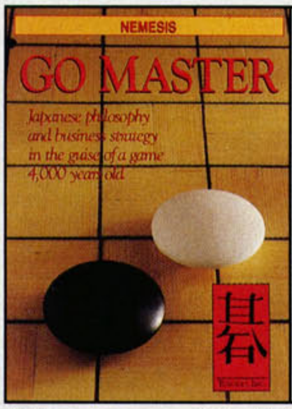
'TIMEQUEST' from **LEGEND** is a time travel, puzzle oriented adventure game. Spanning 4 continents and three thousand years. Travel to Rome, England, Mexico, Cairo, Babylon, Baghdad, and Peking. Meet Caesar, Hitler, Genghis Khan, Napoleon, Cleopatra, Michelangelo, Attila the Hun, and others. With a menu driven parser **CGW** says "Legend got the adventure game interface right." **$29**

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'NEMESIS GO' from **TOYOGO** is the ultimate computer **GO** program. With the simplicity of checkers and the complexity of chess, **GO** is both an enjoyable recreation and a serious strategy game. **GO MASTER** is a basic **GO** player and tutor. **JOSEKI GENIUS** adds complex corner openings. **TACTICAL WIZARD** is the ultimate tutor offering in depth tactical analysis. **GO** is 4000 years old. **$49**

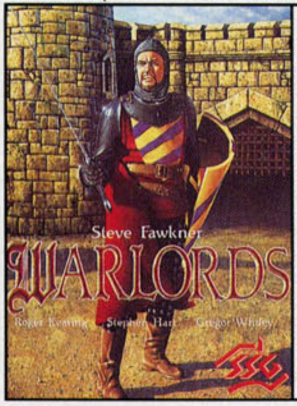
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'WARLORDS' from **STRATEGIC STUDIES GROUP** is a huge eight player strategy game of empires and armies, castles and heroes, monsters and dragons. Capture cities to increase production. Use your heroes to form alliances. Improve castles and garrison troops to defend your empire. Lay siege to your enemies' castles to destroy his armies. Ambush his heroes to destroy leadership. **$29**

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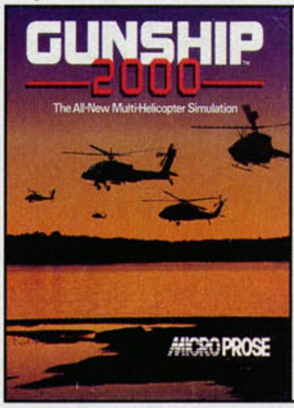
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'GUNSHIP 2000' from **MICROPROSE** is a multi helicopter combat simulation. You control five copters on hundreds of combat missions in the Persian Gulf & Central Europe. On each mission choose amongst the Apache, Longbow, Cobra, Kiowa Warrior, Blackhawk, Comanche, or Defender.Call in air & artillery support. A campaign game and a mission designer are included. **$39**

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'WORLDS AT WAR' by **Lyric Software** is a game of naval combat on a galactic scale. Simple in concept, you can play the tactical study for an hour; or the campaign game for a weekend. Features include random map generation, hidden movemnet, design your own task forces, capture palnets to build more units. **CGW** said "...like **EMPIRE**, what this game has is play-value". **$30**

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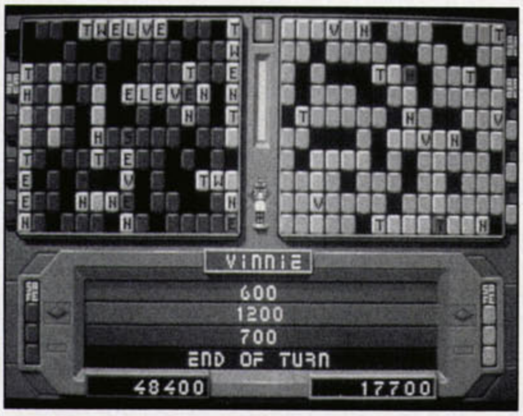


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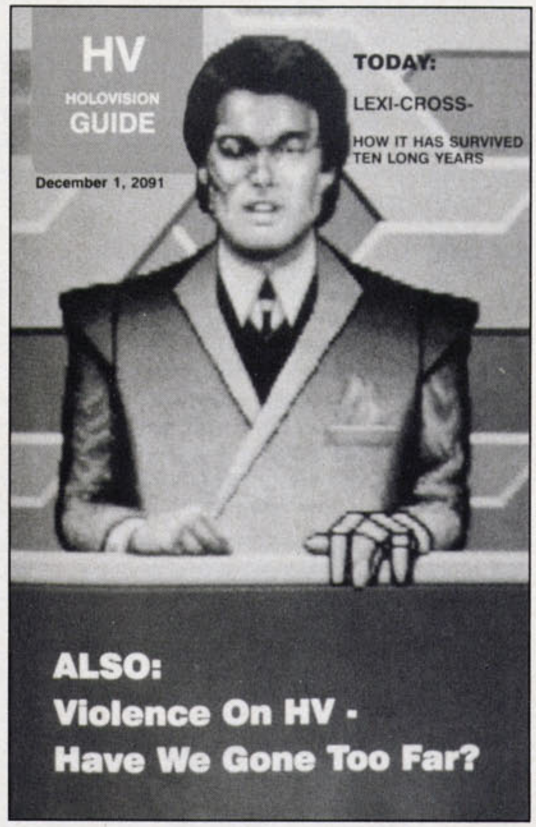
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TITLE:	Lexi-Cross
SYSTEM:	IBM
# PLAYERS:	1-2 modem option
PRICE:	$49.95
COPY PROTECT:	Document look-up
DESIGNER:	Peter Oliphant
PUBLISHER:	Interplay Santa Ana, CA



Tomorrow's Game Show Today

by Stanley R. Trevena

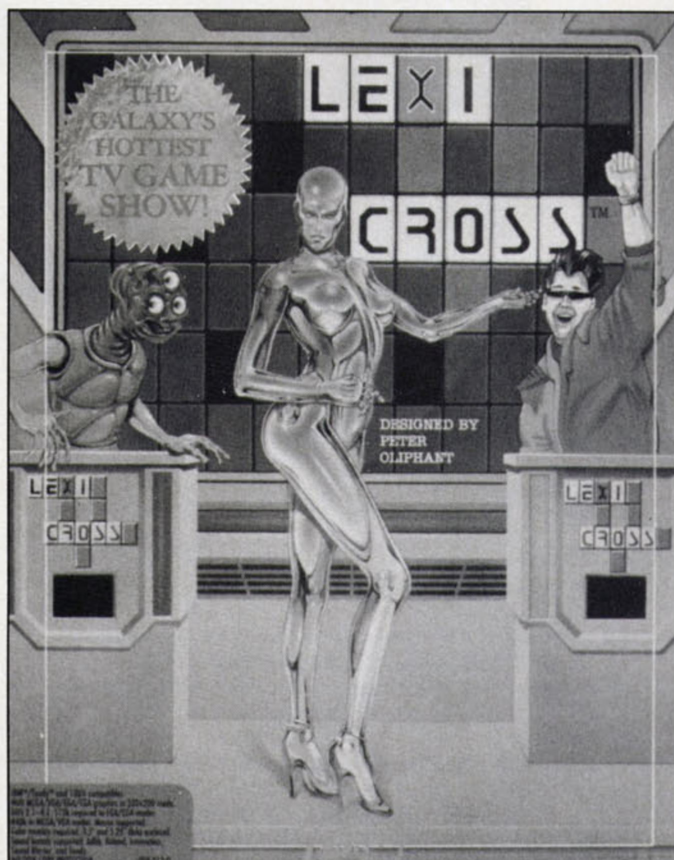
The "Wheel" is dead, long live the "'Cross" — *Lexi-Cross*, that is. **Interplay**'s newest product is a strategy game that parodies the television game show format. Unlike computer games that have merely programmed the rules to actual TV game shows so players can test their wits at home, *Lexi-Cross* is designed to be a game show set in the future. In the game's fictional wrap, the game takes place in the 21st century; television has been replaced with holovision; contestants are from throughout the galaxy and *Lexi-Cross* is all the rage. So, move over, Pat and Vanna — Chip and Robanna are the state of the art.

Lexi-Cross is a fast-paced word game that has been described as a combination of *Battleship*, *Concentration*, *Scrabble* and *Wheel of Fortune*. The object of the game is to reveal words hidden in a matrix of tiles, guess the relationship of those words and solve the puzzle before one's opponent can. A fast timer and over 600 puzzles will keep even the best word puzzle fan busy for weeks.

Dial "M" for [Rupert] Murdoch

The documentation for *Lexi-Cross* is presented as the *Holovision Guide*. The documentation serves as a form of copy protection and basic instructions, padded with background fiction. Beyond the information contained therein, important information on command line options, modem play and sound board support data may be found in a separate "README" file on the disk which probably should have been in the manual or on a printed technical supplement.

The game itself consists of three rounds, each increasing in point value, and a bonus round. The game can be played in either a practice mode or "On The Air" with either a human or computer opponent. There are five levels of computer opponent available. Playing a game in practice mode allows the player to get acquainted with the interface, rules and basic gameplay with or without a timer. There is no bonus round in a practice game, however. "On The Air" gives the player the full game show feel, complete with the usual inanities from the host, Chip Ramsey.



The game parameters are set before the program ever executes. After installation the player sets the hardware defaults. Puzzle difficulty levels are player-selectable; low and high values range in difficulty from Children through Genius level. Setting the low and high values to the same setting restricts puzzle type to one level. One can even establish the number of days before a puzzle may recycle or, for a real challenge, have some or all of the words in anagram form.

A Conundrum Built for Two

The actual game takes place on a gameboard built as a 10 x 15 matrix of blank tiles. The puzzles are the same for each player, but the words are found in different locations. Puzzles can be one of four types: common theme, literal, puzzle word and missing word. The majority of the puzzles (70%) are of the first two types. Players take turns alternately exposing tiles, picking letters, buying vowels and attempting to solve the puzzle. A player continues his turn until stopped by a "Lose Turn" token or failing to guess either a letter or the puzzle solution itself.

One strategy for exposing tiles can be borrowed from the game of *Battleship*. It is best to pick tiles that are not adjacent on the board and selections should cover a wide area. Then, once a letter tile is revealed, adjacent tiles can be overturned until the entire word blank is exposed. A word of caution: tiles adjacent to the word, especially at the ends, often hide "Negative Point" and "Lose Turn" tiles.

Aside from locating letter tiles, the player will want to locate other tiles of benefit. Point tokens add to the player's point total while subtracting from the opponent's. A safety token is retained and used later to counter a bad tile/event any time in the same round. The "Peek" token entitles a player to select a row or column to be exposed to view for a split second. Selecting any of these will allow a player to continue his or her turn.

The player should use caution, however, as there is a counterpart to each of the above tokens; stumbling on one of these will end the player's turn. A "Negative Point" token subtracts from the player's total and adds to the opponent's total. "Lose Safety" tokens remove a safety token from the player's side and give it to the opponent. A "Poke" token selects, at random, a row or column from the opponent's gameboard and exposes it for a split second.

Vowel Movement

One last token is the "Vowel" token which, of course, enables the player to choose a vowel. When sufficient letter tiles are exposed, the player will want to start guessing letters. At this stage of the game, *Lexi-Cross* plays like *Wheel of Fortune*. The player spins for point values and guesses letters. If a letter is in the puzzle, all corresponding tiles which are currently exposed are turned over and the points are added to the player's total. Guessing a letter not in the puzzle will end a player's turn. A player should remember that both puzzles are the same and letters that the opponent has already guessed correctly are usually a safe bet when guessing letters.

Mixed in with point values on the wheel are "Bankrupt," "Lose Turn" and "Expose Row/Column" markers. The first causes the



player to lose all points accumulated in the current round, "Lose Turn" is self-explanatory and "Expose Row/Column" will turn over every tile in a player-selected row or column. The player can be assured that the selection will probably have a mix of good and bad tiles. This stage of the game can begin as soon as the first letter tile is exposed. It is best to wait until sufficient letter tiles are exposed before guessing letters, however, since no points are scored for letter tiles not yet exposed.

A round ends when a player guesses the puzzle. There is a single line hint on the solve screen that the player can view at any time during a game. The hint is blank and only those letters used by the player will be filled in at any given time. The player solves the puzzle by selecting the solve puzzle option, viewing the hint and then typing in the solution to the puzzle. If the wrong solution is given the player loses his next turn. After three rounds the player with the most accumulated points advances to the bonus round.

In the bonus round the player picks a set number of letters and vowels and then must solve the puzzle in a set time limit. The bonus round is the most difficult part of the game, but success can be very rewarding in total points. If the player ranks in the top five of Lexi-Cross history he or she gets inducted to the "*Lexi-Cross* Hall of Fame."

A few options are not clearly detailed in the documentation. Pressing the F7 key during a round will save the current game to disk. Player points and game statistics are retained but the current puzzle is not. Starting the game again with the RESUME command line option will start the game at the beginning of the last round played with a new puzzle. This is true even after losing the connection during a modem game. When resuming a modem game the player must place the keyword RESUME before MODEM in the command line.

Three levels of modem error correction are available to the player, but this reviewer had problems with the modem connections even at the highest error protection level. After reconnecting an "On the Air" game, Chip Ramsey will recap the last round played and start the new round. Other programmers should take note of this feature, as nothing is more frustrating than losing a connection and having to restart a game from scratch. One known bug in the game has to do with the pause [F1] key. If one is in 'select a letter' mode and pauses the game, the letter selected after unpausing will not be the letter the game selects. Later copies of the game should solve this minor problem.

See You Next Week on... *LEXI – CROSS*!

Lexi-Cross is a refreshing variation on the ever popular game show theme. Anyone who enjoys *Wheel of Fortune* will love *Lexi-Cross*. The theme music, background music, introductions and inane comments from the host all add to the convincingly authentic game show atmosphere. This reviewer often caught himself chanting at the computer for misfortune to be bestowed on the opponent and breaking out in victory cheers when a win was at hand. Anyone tired of the same old games should give *Lexi-Cross* a look. This reviewer found it to be both as habit-forming as a couch potato's viewing preferences and challenging as a classic strategy game. CGW

Abstracts From *The Journal of Computer Game Design*

Once or twice per year, CGW *prints abstracts of selected articles from* The Journal of Computer Game Design *in order to stimulate thought concerning the philosophies behind and development of computer games. This month, we summarize salient articles from Volume 4.1, 4.2 and 4.3. The journal is published six times a year. To subscribe to the journal, send a check or money order for $30 to:*

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Some Thoughts on Network Games

by David H. Schroeder (*MasterWord* on the **Quantum Computer Networks**)

David's article notes that there are different personalities among the commercial telecommunications networks that offer multi-player games. He observes that **Prodigy** does not want any user to interact in real time with any other user. In *MadMaze*, for example, there may be 1,000 users exploring the maze at a given time and 500 of them in the same exact location, but none of them are aware of any others. They inhabit 1,000 identical, but separate "universes." On **GEnie** or **Compuserve**, one does not need any network-specific terminal software to access the network (with the exception of special games like *Air Warrior* that require special software). Then there are the services like **Quantum** that offer graphic game environments with multiple players (**Quantum**'s latest is *NeverWinter Nights*, a multi-player *AD&D* adventure using the **SSI** gold box-style appearance) who interact with each other in both real-time and play-by-electronic mail (PBEM) environments.

David's basic point is that there are three basic issues to be addressed in designing network games. First, the technical issue is concerned with the relationship between the central host computer and the individual user's PC. The questions to be asked are: "Where is what data?" and "Where is what intelligence?" Schroeder ties this issue back into the network's philosophy. What the designer does in the game design is largely dependent on the network's philosophy and capability.

Second, the network developer must think about the relationship between users, asking questions like "Who is what to whom?" The goal in asking this question is provide a largely invisible interface that facilitates fun without getting in the way of the participants. His article suggested the analogy of the game design/interface as being like a social director at a summer camp.

Third, he observed that a network game environment is open 24 hours per day and suggests that time and consideration reflect on the question, "How does each person encounter the time frame of the game experience?" It is not possible to simply announce a beginning and ending time for these games such as a human game master might open his/her living room. Rather, people "wander" in and out of the game all the time. Time needs to be spent wrestling with ways to be certain the needs of *all* the players are met, no matter how short or long their stay in the game "universe."

Types of Play

by Evan Robinson (programmer of *Centurion: Defender of Rome* and *Champions*)

Evan placed emphasis on a taxonomy for computer game design. His definitions follow.

Unstructured Play: Interaction with a system in which the primary goal of the user(s) is examination of the system's behavior. Also called "Exploration."

Structured Play: Interaction with a system in which the primary goal of the user(s) is to place the system in a specific state or to specifically affect some subset of the system's variables (like score).

Competitive Play: Interaction with a system in which each user (including system constructs which approximate human users) engages in Structured Play, but where all the goal(s) of all the user(s) are not mutually attainable. Also called "Competition."

Building on these definitions, Robinson suggests that a system for unstructured play is a toy, a system for structured play is a puzzle and a system for competitive play is a game. He goes on to defuse a major debate among designers by exhorting developers not to become blinded by such labels and to remember that customers will do with these games whatever they please (i.e. one person's toy is another person's puzzle).

An Approach to Plotting for Interactive Fiction

by Scott Jarol

In a three-part article, Jarol draws from non-game sources to delineate some ideas for plotting interactive fiction. In the first article, Jarol notes the difference between problems and puzzles. He states that puzzles are encapsulated activities with a definitive outcome. Problems are elusive goals that protagonists seek to reach over the course of a story structure or game. Puzzles, therefore, are largely game extenders, whereas problems are motivational goals. He goes on to suggest that the basis of a story (and hence, of course, the basis of a game) is largely discovery and confrontation. The protagonist quickly recognizes that he/she has a problem to solve, but rarely realizes how complex the problem is until later in the story as the scope is enlarged.

In the second article, Jarol draws from Syd Field's classic works on screenwriting to enumerate five essential steps in any movie script. In Field's classic paradigm, there are three major plot points, interrupted by two pinches. The pinches, in turn, are the complications which serve as the turning points of the first and second halves of the second act. Then, Jarol admits that diagramming plots in such an artificial way is probably only useful as an academic exercise. Yet, he observes that using such a model can help designers better understand the mechanics of narrative and, in turn, focus better upon story.

The third article has not yet been published, but it is expected to deal with fashioning a "virtual personality" for the player character of a CRPG.

(Continued on page 78)

Computer Gaming World's

See Reader Input Device on page 74

The Categories

Strategy (ST): Games that emphasize strategic planning and problem-solving.

Simulation (SI): Games based on first-person perspectives of real-world environments.

Adventure (AD): Games that allow you to take an alter ego through a storyline or series of events.

Role-Playing Adventure (RP): Adventure games that are based on character development (usually involving attributes).

Wargames (WG): Simulations of historical or futuristic warfare from a command perspective.

Action/Arcade (AC): Computer games that emphasize hand-eye coordination and reflexes.

Games are often listed in more than one category. In this case, the first listed category is considered primary. In order to be recognized as the "Top Game" in a given category, a game must be listed as being primarily of that specific type.

Top Role-Playing



Top Simulation



THE TOP TEN GAMES

No.	Name	Source	Category	Avg. # Resp.	Rating
1.	*Wing Commander*	*Origin*	*AC*	*90*	*10.69*
2.	*Railroad Tycoon*	*MicProse*	*ST*	*80*	*10.61*
3.	*Warlords*	*SSG*	*WG,ST*	*27*	*10.43*
4.	*Red Baron*	*Dynamix*	*SI*	*62*	*10.41*
5.	*Their Finest Hour*	*LucasFilm*	*AC,SI*	*106*	*10.36*
6	*Eye of the Beholder*	*SSI*	*RP*	*63*	*10.03*
7.	*SimCity*	*Maxis*	*ST,SI*	*123*	*9.59*
8.	*Harpoon*	*Three-Sixty*	*WG*	*75*	*9.48*
9.	*Ultima VI*	*Origin*	*RP*	*73*	*9.43*
10.	*M-1 Tank Platoon*	*MicroProse*	*SI,WG*	*73*	*9.41*

No.	Name	Source	Category	Avg. # Resp.	Rating
11.	Bane of the Cosmic Forge	Sir-Tech	RP	44	9.28
	Lemmings	Psygnosis	AC	25	9.28
13.	King's Quest V	Sierra	AD	51	9.25
	MechWarrior	Activision	ST	53	9.25
15.	Silent Service II	MicroProse	SI	57	9.22
16.	Command HQ	MicroPlay	WG,ST	53	9.21
17.	Second Front	SSI	WG	38	9.17
18.	Wings	Cinemaware	AC	33	9.16
19.	Elvira	Accolade	RP	30	9.13
	Red Storm Rising	MicroProse	SI	74	9.13
21.	Quest for Glory II	Sierra	AD,RP	28	9.10
22.	Populous	Electronic Arts	AC,ST	115	9.08
23.	Battlehawks 1942	LucasFilm	AC,SI	86	9.05
24.	Lords of Rising Sun	Cinemaware	AC,ST	50	9.02
25.	Wasteland	Electronic Arts	RP	119	9.01
	Ultima V	Origin	RP	91	9.01
27.	Quest for Glory	Sierra	RP	57	9.00
	Rise of the Dragon	Dynamix/Sierra	AD	37	9.00
29.	Space Quest III	Sierra	AD	34	8.97
	Sword of Aragon	SSI	WG,ST	45	8.97
31.	Romance of the 3 Kingdoms	Koei	ST,RP	31	8.96
32.	Secret of Monkey Island	Lucasfilm	AD	29	8.95
33.	Overrun	SSI	WG	24	8.93
34.	Falcon	Spectrum Holobyte	SI	62	8.90
35.	Dragon Wars	Interplay	RP	30	8.87
	NFL Challenge	XOR Corporation	ST	86	8.87
	Starflight II	Electronic Arts	RP	63	8.87
	Indianapolis 500	EA	SI	32	8.87
39.	Power Monger	Electronic Arts	ST,WG	52	8.83
40.	Might & Magic II	NewWorld	RP	54	8.81
41.	The Magic Candle	Mindcraft	RP	43	8.80
	LHX Attack Chopper	EA	AC	25	8.80
43.	Project Stealth Ftr	MicroProse	SI	29	8.79
44	Bard's Tale III	EA	RP	54	8.77
	Leisure Suit III	Sierra	AD	47	8.77
46.	Airborne Ranger	MicroProse	AC	74	8.76
47.	Bandit Kings	Koei	ST,RP	28	8.75
48.	Jack Nick Unlimited	Accolade	ST	26	8.73
	Battles of Napoleon	SSI	WG	30	8.73
50.	Battlechess	Interplay	ST	62	8.72
51.	Action Stations	Conflict Analytics	WG	22	8.71
	Breach 2	Omnitrend	ST,RP	29	8.71
53.	Secret of the Silver Blades	SSI	RP	47	8.70
	Nuclear War	New World	ST	41	8.70
	Neuromancer	Interplay	AD	33	8.70

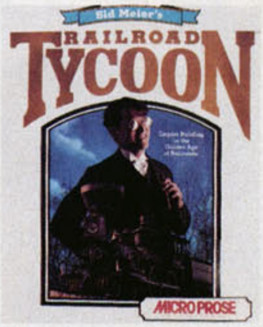
THE HALL OF FAME

The Games in CGW's Hall of Fame Have Been Highly Rated by our Readers over Time. They are Worthy of Play by All.

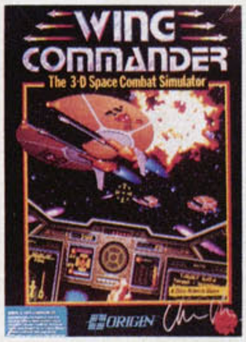
Bard's Tale I
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Dungeon Master
Earl Weaver Baseball
Empire
F19 Stealth Fighter
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Gunship
Kampfgruppe
Mech Brigade
Might & Magic
M.U.L.E.
Pirates
Starflight
Ultima III
Ultima IV
War in Russia
Wizardry

No.	Name	Source	Category	Avg. # Resp.	Rating
56.	F-15 Strike Eagle II	MicroProse	SI	58	8.69
57.	Typhoon of Steel	SSI	WG	43	8.67
	Curse of the Azure Bonds	SSI	RP	70	8.67
	Sword of the Samurai	MicroProse	ST,RP	40	8.67
60.	Ishido	Accolade	ST	28	8.65
	Chessmaster 2100	Software Toolworks	ST	44	8.65
	Indiana Jones/Graphic Adventure	Lucasfilm	AD	29	8.65
	Ballistyx	Psygnosis	AC	20	8.65
	Zany Golf	Electronic Arts	AC	31	8.67
65.	Wayne Gretzky Hockey	Bethesda	AC,ST	36	8.62
66.	Pool of Radiance	SSI	RP	116	8.61
67.	Champions of Krynn	SSI	RP	65	8.60
	Shanghai II	Activision	ST	20	8.60
69.	King's Quest IV	Sierra	AD	58	8.59
70.	Buck Rogers	SSI	RP	39	8.57
71.	It Came From Desert	Cinemaware	AD	36	8.54
	Genghis Khan	Koei	ST,RP	34	8.54
73.	Future Wars	Interplay	AD	24	8.53
74.	Panzer Strike	SSI	WG	68	8.51
	Carrier Command	MicroPlay	AC,WG	49	8.51
	DeathTrack	Activision	AC	29	8.51
77.	Savage Empire	Origin	RP	36	8.50
78.	Manhunter 2	Sierra	AD	31	8.42
79.	Nobunaga's Ambition II	Koei	ST,RP	20	8.40
80.	TV Sports Football	Cinemaware	AC,ST	50	8.39
81.	Wings of Fury	Broderbund	AC	52	8.38
82.	Strike Fleet	Electronic Arts	WG	79	8.37
83.	Fire Brigade	Panther	WG	30	8.34
84.	BattleTech II: Revenge	Infocom	WG,RP	42	8.33
85.	Rocket Ranger	Cinemaware	AC,AD	75	8.32
86.	Nobunaga's Ambition	Koei	ST,RP	20	8.30
87.	Police Quest II	Sierra	AD	39	8.29
	TV Sports Basketball	Cinemaware	AC,ST	33	8.29
	Modern Wars	EA	ST	24	8.29
90.	Drakkhen	Data East	RP	32	8.27
	688 Attack Sub	EA	SI,ST	59	8.27
92.	Flight of Intruder	Spectrum Holobyte	SI	25	8.26
	Lord of the Rings	Interplay	RP	31	8.26
94.	Manhunter	Sierra	AD	72	8.25
95.	Centurion	EA	ST	49	8.24
96.	Police Quest	Sierra	AD	98	8.23
97.	Starglider II	Rainbird	AC	65	8.22
98.	Jack Nick 18 Holes	Accolade	AC,ST	32	8.21
	Three Stooges	Cnmwre	AC	68	8.21
100.	Search for the King	Accolade	AD	20	8.20

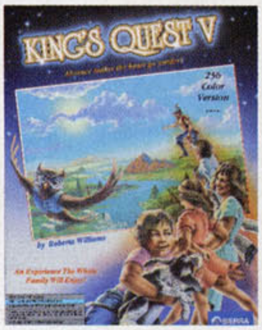
Top Strategy



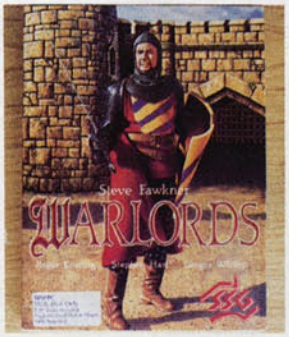
Top Action



Top Adventure



Top Wargame

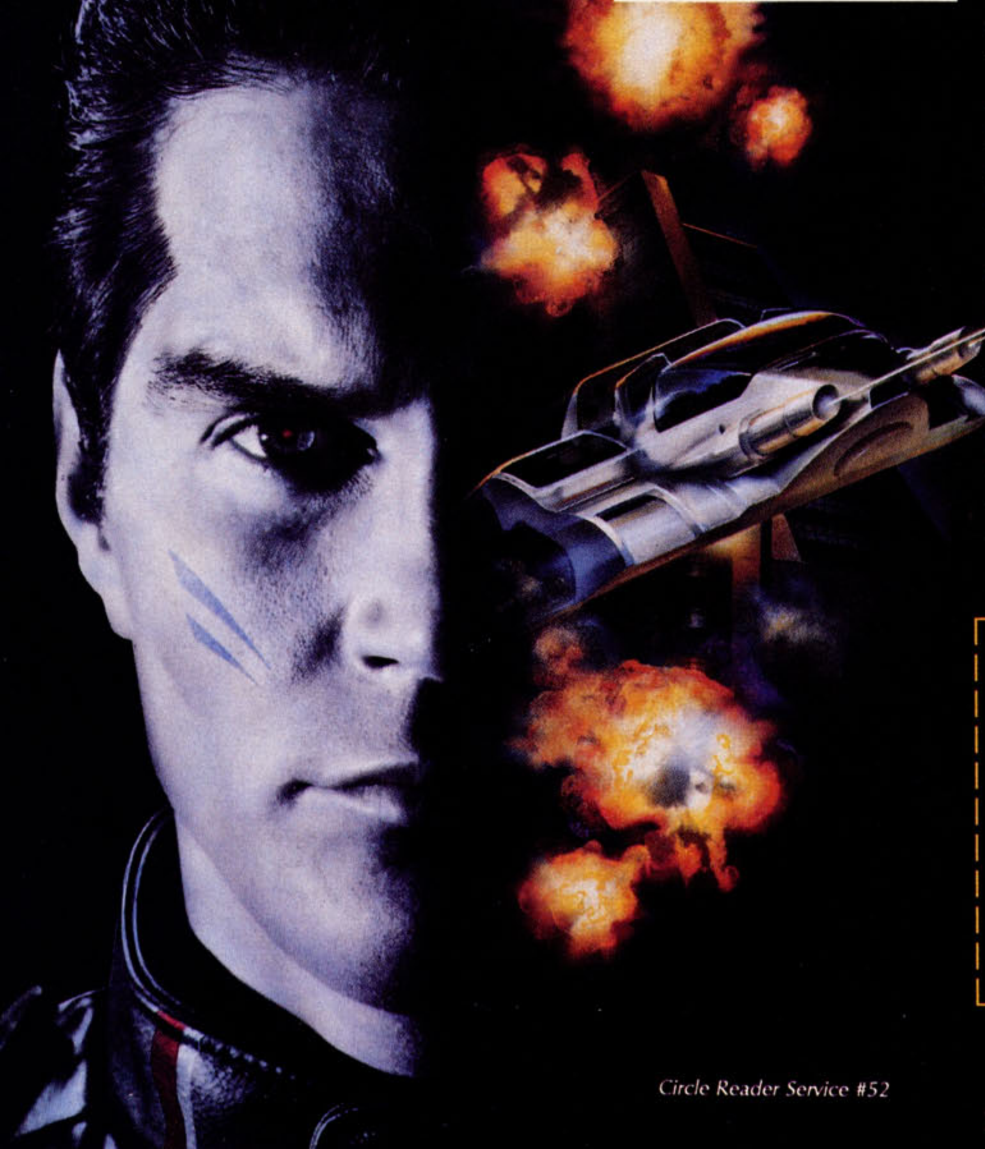


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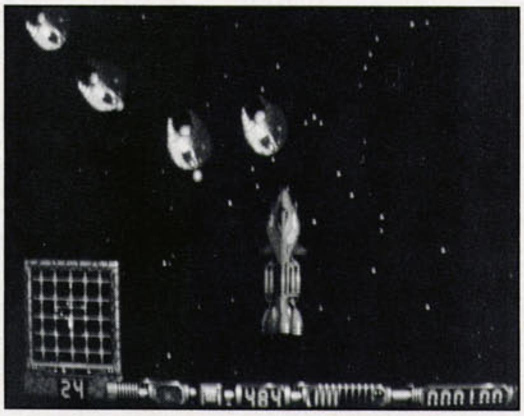
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Circle Reader Service #52

Plunder and Planet-Hopping

An Awesome *Survival* Guide

by Derek Godat (with a thousand thanks to Cormac Batstone)



With its latest milestone arcade game, rightfully named *Awesome*, **Psygnosis** once again explores the hostile and fantastic fringes of outer space. Unlike many previous galactic shoot-'em-ups, *Awesome* requires quite a bit of forethought and strategic planning on the part of the player. Lightning-quick reflexes are, of course, mandatory, but the gamer must now exert himself cerebrally as well.

To aid the ardent *Awesome* player, this writer has plunged headfirst into the nether reaches of the cosmos and managed to find, within the guise of an ordinary ship's log, some noteworthy techniques for gameplay. It is hoped that with this reconnaissance information in hand, and with many, many hours of gut-wrenching play under one's belt, *Awesome* may be triumphantly concluded.

Out of Existence Sale

In the bleak world of the future, just as today, economics determines the fate of billions. The troubles began when two neighboring galaxies, namely those listed on the star charts as Octaria and Homikahn, began to squabble over intergalactic trade policies. Solutions to these disputes were quietly decided upon in the secrecy of galactic political strongholds. Octaria, being the more sophisticated and financially stable of the two galaxies, determined to use their superior trading strategies to mercilessly pillage the wealth of Homikahn. This being so, the militaristic empire, Homikahn, began to counteract the Octarian advantage by preparing to convert Octaria into so much orbiting debris. Naturally, an encoded transmission reveals this diabolical plan to the player character and the adventure begins.

Now, the reaction of a *typical* spacecraft in an *ordinary* computer game storyline would, naturally, be to proceed with haste to the Homikahn galaxy and exterminate all the nasty, slithering, gibbering alien scum found therein in order to rescue Octaria from certain death. Here is where *Awesome* differs. The player's objective, as commander of the mercenary craft *Elapidae*, is to unceremoniously turn tail and escape the galaxy, leaving every last man, woman, child and space-mold to his or her respective death.

While the plot tosses the too-familiar burdens of nobility, humanitarianism and honor out the window, there's plenty of challenge for the video blackguard. Just surviving the trek through hundreds of light years of backwater star systems proves an awesome, if not lethal, gauntlet.

Excerpts From the Log of the *Elapidae*

It appears that the population of this system remains ignorant of our grim secret. Apparently, our ship is the only one in the system to know of the death sentence declared by the Homikahn. If all goes well, our "brother" Octarians shall remain in this unenlightened state until the Homikahn military machine removes the planetary surface from beneath their feet and keep our escape efforts unimpeded by the bedlam of a mass exodus.

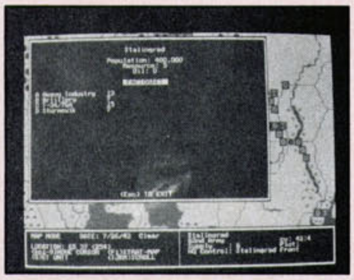
I am greatly impressed with my crew's restraint in the matter. As I dictate this log entry, it has taken a mere seventeen bodies to seal the lips of any potential babblers. A surprisingly low number, considering the crew's usual untrustworthiness and rebellious nature. Nevertheless, I have replaced these seventeen worthless corpses with mercenary scum and plotted a course for Tundrars, the nearest heavenly body on the charts and, coincidentally, the planet to which my ship has been contracted to deliver military equipment.

We have learned some hard lessons since thrusting away from Aquoss. Only days from that planet, the *Elapidae* happened upon a cluster of seemingly lifeless objects which the ship's computers obscurely identified as "organic pods." To my surprise,

Another Look

Second Front

9.17 R.I.D. Rating



Second Front from **SSI** is big... *really* big. An ambitious, strategic-level WWII wargame covering the entire Russian front, this is no game for the casual strategist. Although the name is clumsy (most Westerners think of the "Second Front" as the allied landings in western Europe), this hexagon-based wargame with a weekly turn scale is a grognard's delight.

The unit of maneuver is the corps. Each corps can be seen on a screen showing its component divisions and battalions, and their current states of readiness and experience. Units often need to rest while the supply lines catch up to advancing formations. Hence, assigning generals and air groups becomes a vital concern.

Economics play an important element in *Second Front*. Players can order their economies to concentrate on the production of key tank and plane designs in order to make their war effort more efficient and, hopefully, more effective. Off-board elements such as the campaigns in North Africa and Western Europe are handled abstractly, with the German player needing to maintain garrisons which can be drawn from should emergency reinforcements be needed.

The documentation was a bit vague and some key information was missing (and even incorrect) on the Read.Me file. Fortunately, an article in *CGW* #73 ("Second Look") added much to the documentation to the game. For one or two players (either at the same computer or passing saved game files back and forth), *Second Front* has set a high standard for the translation of the board wargaming genre into computer games. For the IBM and Amiga.

***Computer Gaming World* Index**: *Second Front* was featured in issues 72 and 73 and had short mentions in issues number 65 and 68. **cgw**

these pods were filled with a rather vicious variety of alien insects. Luckily, one of my mercenary co-pilots had the common sense to thrust backward, out of the beasties' range, before they could launch upon the *Elapidae*. Maintaining backward thrust, the *Elapidae* was able to pick off the xenomorphs quite easily. I should make note of this tactic. It may come in handy somewhere between here and the edge of the galaxy.

Our journey forced us across a spiraling asteroid field. It was fortunate that I, in my infinite sagacity, had a sonic mining laser installed while the *Elapidae* was docked at Aquoss. That the laser was on sale, priced ridiculously low, was mere coincidence.

After swiftly conducting our business on Tundrars, we launched for Follas. It had seemed ages since we had actually experienced a peaceful planet and Follas seemed to promise plenty. Alas, the urgency of our need to depart was to keep us from experiencing all the wonders of this planet composed of the twisted limbs of a thousand alien trees. Twice during the trek from Tundrars, we were confronted by hostile spacecraft. The first attack was instigated at our own initiative, since it involved an irresistible amount of floating fuel canisters guarded by a negligible number of police escort ships. We found it advantageous to lure the escort away with a quick exchange of laser fire. Then, when the fools had strayed far enough from the convoy for us to risk a safe shot, they stood absolutely no chance against our superior weaponry. My navigators were able to backtrack through the twisted fragments of our kills and overtake the unguarded canisters before they could recede off of the scanners.

Our next battle came in the form of an ambush, completely unexpected considering the *Elapidae*'s formidable reputation. A ring of blackened globes converged on the *Elapidae*, leaving no room to maneuver, much less defend ourselves from the sleek pirate fighters which closed in for the kill. Luckily, the *Elapidae* was able to break free of this deadly circle using mortar bolt cannons acquired from ballisticians of Tundrars. Were it not for these wondrous armaments, I fear that my mercenary days would have come to an end. With this advantage, the predators fast became the prey.

Fortunately, the warp-speed jaunt from Follas to Vulcurn was nearly as peaceful as the reputation of Follas. Once we neared Vulcurn, however, we experienced an intriguing encounter with a derelict space station. It seemed to be a rotating research station, a titanic structure of seemingly indestructible crimson orbs. There was a gap through which the *Elapidae* entered the interior of the station. Then, as our pilots labored



furiously to avoid the outer ring of orbs, our gunners destroyed the spokes of the station. Once the station had been properly decimated, I myself fired the last thousand rounds into the central orb. Upon its destruction, the station reluctantly released a bizarre piece of hardware which the *Elapidae* neatly plucked from the orbiting flotsam and jetsam. Once slaved to the on-board computer systems, who knows what this exotic technology will be capable of.

After the usual turbulent planetfall, the nose-shuttle of the *Elapidae* skimmed along the surface of Vulcurn in search of a suitable trading port. Unfortunately, the flaming cyclones and geysers characteristic to this environment conspired to completely obstruct an aerial view of the terrain. It was decided that one unlucky mercenary should earn his day's diogem disks by scouting below for a suitable landing site — preferably one with inexpensive trading centers, extensive armories and exotic alien dancing establishments spiraling for kilometers in every direction. A simple task, considering that Vulcurn is only the fourth largest planet in this solar system.

After hours of dicing, gunfights, boasting,

pleading, arm- and sometimes tentacle-wrestling, along with unrestrained mayhem, one poor soul was honored with this quest and dropped into the planetary sea of flames that awaited the nose-shuttle.

The mercenary came through and, in a matter of hours, the *Elapidae* was gleaming on the floor of subterranean catacombs, white-suited technicians swarming over her. Then, with his final breaths, the lump of charcoal that had been my crewman told of a great labyrinth of catwalks and the devastating smart-droids that patrolled them. In a cloud of ash, the merc coughed out that he would be in much better condition if the shuttle had hovered above the maze while someone noted the proper path through it. I thanked the talking corpse for this bit of strategy, then wheeled him out to the flesh-merchants.

Bacillius, a vile planetoid of quivering tentacles and taut flesh, was a welcome sight after the struggles on Vulcurn. Here, another space station found its way into the *Elapidae*'s flight path. Some expert piloting was required to avoid the deadly kiss of the station's spinning exterior and revolving arms. Defeated, the station sent us chasing after precious globules of fuel.

Apparently the *Elapidae* is fast becoming notorious in these hinterlands. The next assault was composed of nearly every sort of craft we've yet faced. The only unknown element was a flickering circular gateway that sent the *Elapidae* tumbling into an alternate universe. After a precious few instants in that sub-space, we were again hurled into the heat of battle, with a bounty of discs and energy capsules kept as souvenirs.

We next arrived at Grosbar, though simply landing the *Elapidae* in a single, working piece had become a considerable chore. Fortunately, we were able to fit pulse shower cannons to the *Elapidae* on this planet. Later, these cannons proved to be quite useful when the ship's computers blandly announced a 'missile alert'. This rather nasty weapon sent glowing darts of fire in every conceivable direction, whilst the *Elapidae*'s pilots worked madly to swing her in a wide circle. It seemed there was no end to the stream of smart missiles which homed in upon the dauntless *Elapidae*. After minutes of manic evasion, a lucky gunner discovered the source of our problems: an odd breed of silver-hued saucer. The saucer's demise accomplished the same for our problems.

Another hop through the stars sent the *Elapidae* into the very heart of yet another space station. Merely keeping pace with the revolutions of the great wheel was a near-impossible task, yet that was not enough. Using the *Elapidae*'s growing arsenal, gunners blew a hole in one crosswise length of the station. By repeating this action, we were able to put the space wheel behind us and continue breathing.

After two mixed — though uniformly deadly — onslaughts, our troubles paid off in the form of a crystal-rich asteroid field. Dodging the tumbling rock monstrosities was a cheerful break from the usual assortment of tedious fire fights.

The mortar bolt cannons proved themselves worthy once more, when, without so much as a warning, a great flurry of asteroids and saucers converged on the *Elapidae*. The *Elapidae* had, in turn, become trapped inside a ring of blackened orbs. Once free of those pesky, lethal spheres, however, a hard-won victory was ours.

Alas, however, by the time we docked at Cryogene, two-thirds of the crew were dead and the others were engaging in a celebration of the most desperate sort. Tomorrow, we launch for Morb, the very last planet at the edge of the galaxy. Long-range scanners aboard the ship have detected a great farewell party massing between this world and Morb. To abate the hopelessness which pervades this, our final battle, I have added a radial disrupter to the weapons-stock of the *Elapidae*. Rumored to accomplish damage of the most apocalyptic proportions, the disrupter may give the ship an added advantage in our most desperate moment. If not, whatever mercenary dog collects and auctions off our remains can still take advantage of the money-back guarantee. **cgw**

The Armories of *Awesome*: Availability and Prices

Weapon	Aquoss	Tundrars	Follas	Vulcurn	Grosbar	Bacillius	Cryogene
Peripheral Gun	250	400	—	150	—	150	50
Mining Laser	250	400	—	500	—	—	50
Merc Crewman	400	—	150	250	300	400	400
Spherical Bombs	500	150	—	100	725	—	—
Pulse Laser	940	—	150	—	200	—	—
Flame Thrower	—	150	100	—	—	—	—
Mortar Bolts	—	150	250	—	—	900	—
Wide Bm. Plas. C.	—	—	300	—	200	—	900
Radial Disrupter	—	—	—	600	—	300	—
Pulse Shower	—	—	—	—	350	500	400

Games We'd Like to See: *Doc-U-Quest!*

by Chuck Moss

The greatest computer game of all time lies in your hands. Millions of hours to be pleasurably wasted, a learning curve to scale, a host of machine intelligences to master — there's just one question: How do I turn it on?

Welcome to *Doc-U-Quest*, the game that drags you through the densest thickets of computer instructions. Thrill to the challenge of trying to install the bugger on your hard disk! Comb through pages of the most opaque prose! Feel the old blood pressure rise as you earn a Masters in Literary Deconstruction (and that's just from reading the table of contents!).

Newly released by Kafkaware, designed by Sid Meagre, with assistance from Chris Crawfish and Joseph Heller, *Doc-U-Quest* simulates the herculean challenge all computer gamers must eventually confront: reading the blasted rulebook. Five levels of difficulty, combined with a devilish tutorial, bring the player into the existential labyrinth of state-of-the-art documentation.

Game mechanics are simple: up to four human players attempt to play a computer game by actually following the instructions! There are five scenarios: From *One:* Try to install this on your hard disk without blowing it up! through *Five:* 200 hours invested in Advanced Level play — but it's 3:47 AM and the program won't save without an obscure keyword sequence found somewhere in the hieroglyphic circumlocutions located on that double-sided sheet of non-repro paper.

Perhaps the most challenging variant is Level Two: Document Check. "What is the fourth word on the seventh line on the nametag of the left-handed sailor in turret B of the *Bismarck* on page 42?" (**Hint:** it doesn't matter! The program contains the wrong keyword anyway!)

Or try variant Four: "Is the little scribbly face smiling or frowning?" Or "Try to fight the Battle of Normandy when none of your units will go where you tell them to. Find the mystery command that passes orders to your units by means of trial and error." (The designers just consider it "fog of war," nya-ha-ha!)

Loaded with fun and techno-thrills, *Doc-U-Quest* is available for the Macintosh IIcx, Amiga 3000 with CD-ROM, IBM 486 compatible systems (math co-processor required) and Nintendo 8-bit. One set of docs covers all four. Requires 20 megabytes of memory, the patience of Job and wisdom of Solomon. CGW

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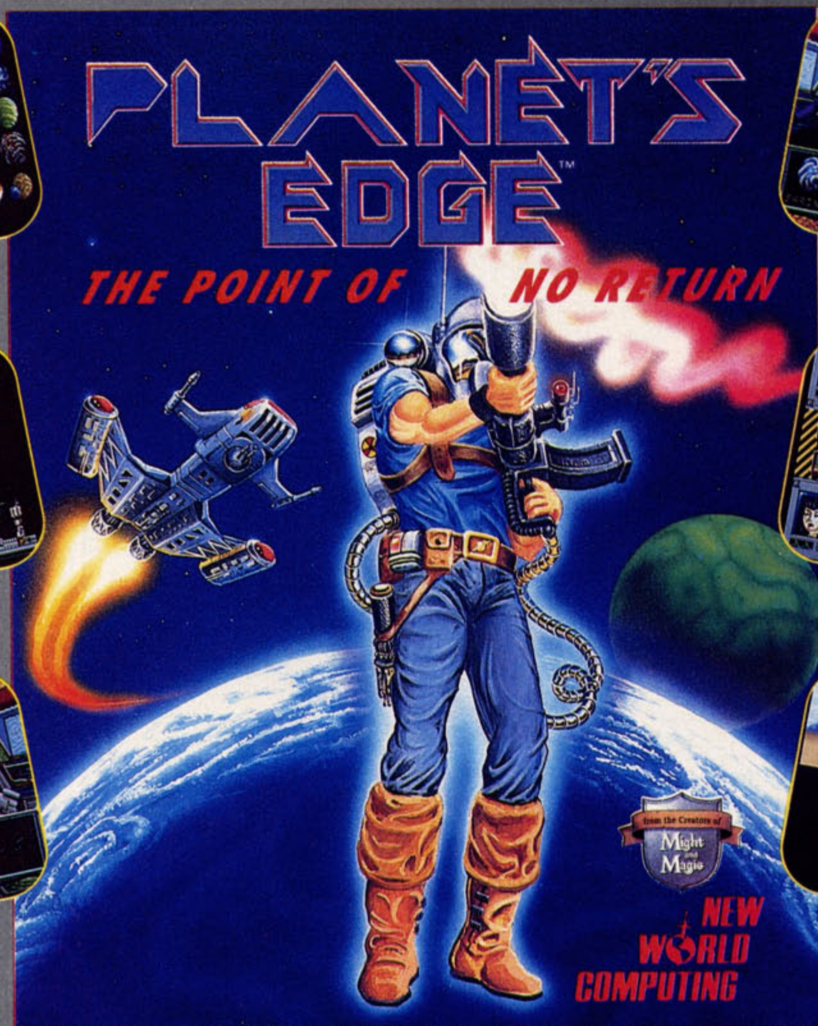
DISCOVER



DESIGN

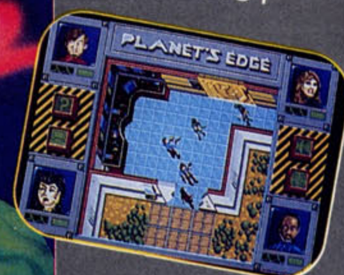


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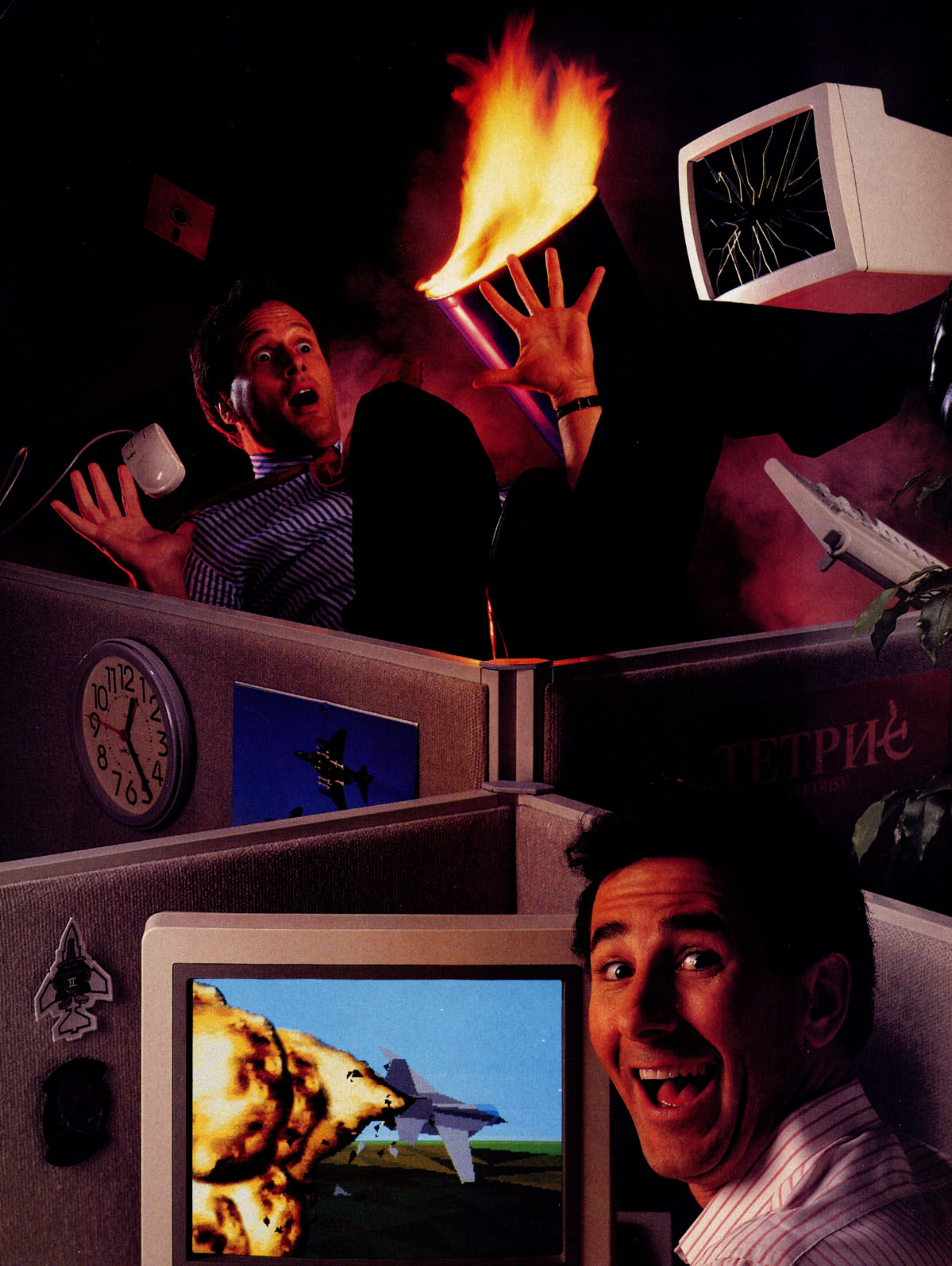
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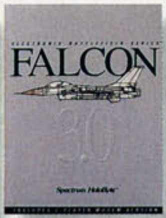
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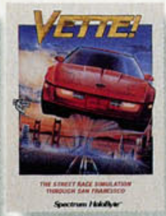
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Circle Reader Service #64

Nothin' "Dopey" About Willy

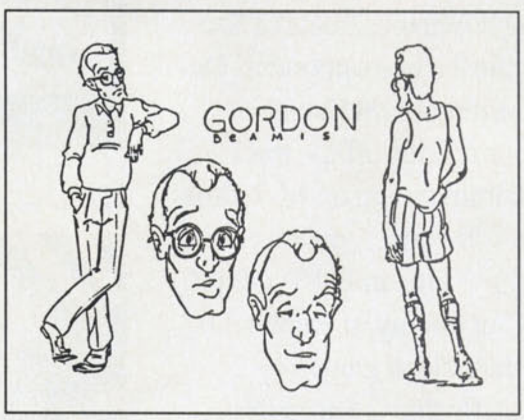
Dynamix Strives to Improve Computer Game Animation



Whether a person is fourteen or forty years old, chances are that he or she was privileged enough to see Walt Disney's classic *Snow White and the Seven Dwarfs* during one of its many theatrical releases. Some may even have seen one of the many *Disneyland* television specials that provided a retrospective on the production of the classic film. Not only was that groundbreaking film so important to Disney as an entertainment company that the present "Team Disney" building has sculptures of the dwarfs "holding up the roof," but "Dopey Drive" is one of the main thoroughfares at the film studio.

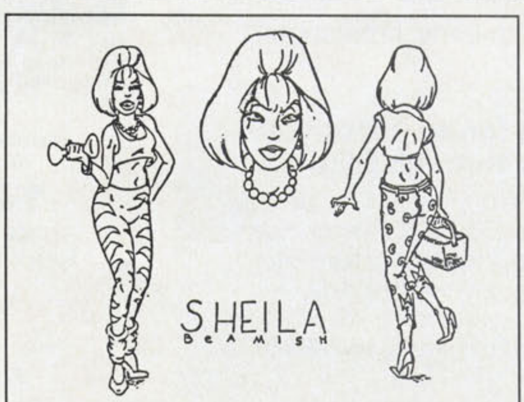
Why was this "cartoon" so successful? Disney believed that one of the major ingredients in its success was the attention to characterization in the personalities of the dwarfs. While some may object that the dwarfs were stereotypes rather than characters, almost everyone would have to admit that the Disney tradition of animation emphasizes character (sometimes by caricaturing the very faces and expressions of the voice talents they are using), life-like action (particularly in the violent scenes from *Lady and the Tramp* and *The Fox and the Hound* which showed the special talent of the late, great Wolfgang Reithermann) and atmospheric backgrounds developed in a style to fit the story (e.g. the *New Yorker* feel to *Lady and the Tramp*, the watercolor innocence of *The Jungle Book* and the dark, forbidding colors found in much of *Sleeping Beauty* and *The Rescuers*).

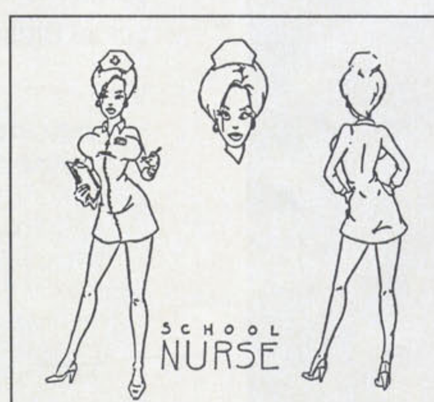


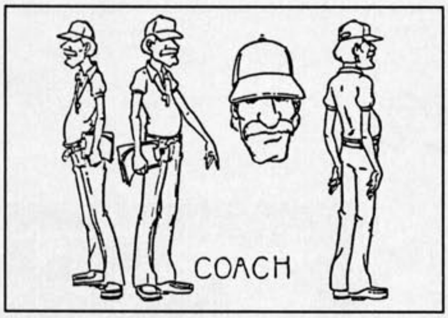


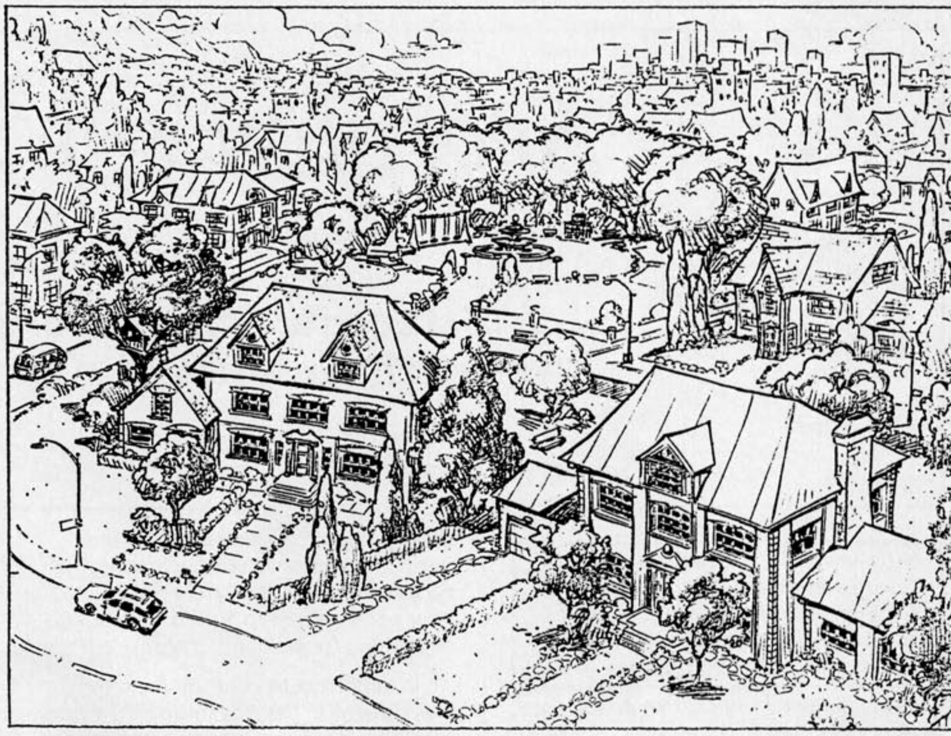
Now, **Dynamix** has assembled animation talents with experience as diverse as Walt Disney's *The Little Mermaid*™, Hanna-Barbera's *Jonny Quest*™ and AKOM's *The Simpsons*™ to tell a heart-warming story of a rather ordinary boy who becomes involved in an extraordinary (and cute) story. *The Adventures of Willy Beamish* will advance the state of interactive fiction through its rich and detailed 3-D backgrounds, its smooth and carefully crafted animation and its attention to the building blocks of good storytelling (i.e. characterization). If the writing turns out half as good as the preliminary character studies featured on these pages and animation tests we've observed (See the "Do-It-Yourself Animation Test" to cut out and staple together on p. 74), this product should have tremendous inter-generational appeal.











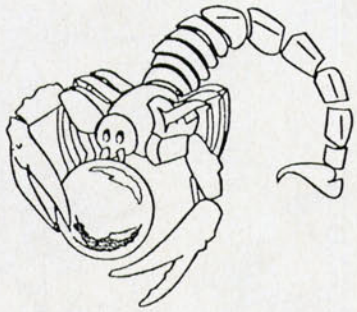
Willy Beamish is surrounded with a cast of characters varied enough to provide *Cheers* scripts for a year (a mother of exaggerated yuppie temperament, a neurotic dad who plays with Willy's toys, a "deceased" grandfather who makes occasional ghostly visitations, two stereotypical sisters and a potentially romantic complication with the little girl down the street).

In the story, his jumping frog has just eaten all the competition and someone is planning to blow up the city's entire sewer system. Sounds like a good time for Willy to "blow out of town," but knowing computer games, Willy's going to have to find the heroic impulses within and superhuman resources without before anyone says "That's All, Folks!" for *this* interactive cartoon.

Sierra will be officially unveiling *The Adventures of Willy Beamish* at the Summer Consumer Electronics Show in June, but we are reproducing a screenshot and some of the preliminary artwork so *CGW* readers can see that the game will feature more than new computer graphics techniques and a new set of tools for making computer games. *The Adventures of Willy Beamish* may well be the benchmark in computer game animation that *Snow White* was for cinematic animation. It is too early to *evaluate* the product, but it is certainly not too early to commend the attention to detail, studio approach and advancements in scanning and programming technology used therein. **CGW**



Scorpion's View



Strategic Simulations' Death Knights of Krynn



Scorpia is an experienced and respected adventure game expert. CGW is pleased to be able to provide this forum for her distinctive and often controversial perspective.

Peering into a crystal ball in the dead of night has its drawbacks. For instance, one might see the face of a dead man peering back and *that* is not a sight calculated to bring you pleasant dreams! Nightmares (equine and otherwise) are the more likely result. Especially if you're scoping out the land of Krynn.

Death Knights of Krynn is the follow-up, naturally enough, to *Champions of Krynn*. It's pretty much standard "Gold Box" fare: you can bring your characters over from *Champions* or create new ones; the emphasis is mostly on fighting your way through the game; the plot is essentially "Get Foozle The Evil Wizard" and there is the obligatory final encounter with Foozle at the end.

In this case, Foozle happens to be Lord Soth, a man (?) with definite necrophiliac tendencies. Soth just loves undead, practically undead anything. There's nothing that he "digs" more than animating some hapless corpse and sending it out to wreak grave consequences on the world.

So, in case you hadn't guessed by now, you'll be coming across a lot of undead in this game, including a few types you've never seen before, such as undead beasts (extremely nasty), undead dragons, zombie mastodons, skeletal warriors, undead rocs and, of course, the Death Knights of the title, along with the more familiar specters, wights, ghasts, wraiths and other delights you've become accustomed to in previous endeavors.

For variety, there are also a few regular dragons, Sivaks, Kuo-Toa, fire lizards, golems, nightmares, hellhounds and human enemies wandering around, with no other thought than to bring about your early demise. Krynn is no place to be looking for welcome mats.

It is important to read the monster descriptions in the Adventurer's Journal carefully, since some of these undead cannot be turned by a cleric of *any* level; there are some against which weapons may be of only limited use and some against which particular types of weapons may be more effective.

Your party is composed (unless Lord Soth manages to "decompose" it) of the usual six characters, created from among Humans, Elves, Dwarves, Half-Elves and Kender, with the usual professions of Fighter, Ranger, Knight, Mage, Cleric and Thief. There is little use for thieves in this game, except in one particular instance, which we'll come to in due time.

If you're bringing characters over from *Champions*, remember that the good stuff, such as the dragonlance, gauntlets of ogre power, belt of giant strength, mace of disruption, etc., won't come with them. However, don't despair. As you progress in *Death Knights*, all these goodies will turn up again, and this time, you won't have to give them back at the end.

Having created your party, or transferred characters over from *Champions*, you begin the game proper in Gargath Outpost, the local stronghold of the Solamnic Knights. Celebrations are in progress over your victories in the previous game (whether you played it or not).

These celebrations are rudely interrupted by the appearance of Sir Karl, riding a death dragon. This causes a bit of consternation to all, as Sir Karl died valiantly in *Champions*. Rather puts a damper on all the fun, seeing a former comrade as a quickened corpse working for the other side.

After casting a few taunts in your direction and leaving behind equipment taken from fallen Solamnic Knights, Sir Karl flies off into the unfriendly skies and the celebrations come to an end. Your party is now free to wander about the outpost and take on a few duties toward its defense. It seems Sir Karl was not alone; Gargath is under siege by the enemy.

Several encounters (including a meeting with the Dread Wolf, who will dog your steps for awhile) later, the siege is broken and you are now able to begin following the trail that leads to Lord Soth. This is pretty well laid out and, as long as you're careful, you won't have much trouble finding your way to him.

Outside of the main path are several other interesting places to visit, such as Cerberus, Quazle, Cekos, Throtl and Turef. Each of them has its own problems with the dark forces, which you can clear up if you feel so inclined. Typical for the "Gold Box" series, each town not only has its collection of wandering nasties, but there is also that one inevitable spot where the center of the trouble is sure to be camped out. Fortunately (or unfortunately, depending on your perspective), finding and killing the ringleaders nearly always clears the town.

These generalities do not apply to Cerberus, however. The cleanup is a bit more involved in this burgeoning necropolis. While the town is infested with undead, the real trouble spot is the graveyard. As most of the undead in this area are of the level-draining type, it is best left for a time when your party is not only of high level, but also has some good armor. You may also want to drop the difficulty level way down, just to get

through this area quickly. Watching all those hard-earned levels "pass away" at a touch isn't much fun.

A word about Quazle: this Gnome town I was never able to clear. I knew where the trouble spot was; my party just could never get through the door. Not with a 13th level mage casting Knock, nor a 13th level fighter equipped with a belt of Cloud Giant strength bashing at the door. The program seemed to ignore what we were doing, as even after choosing the "cast Knock" option, I found the spell to still be in the character's memory. Very frustrating. Fortunately, cleaning out Quazle is not necessary to finishing the game. If this happens to you, ignore it and go on to other things.

When you reach the big fight with Lord Soth and friends (several Death Knights and a crew of iron golems), you must be suitably prepared or your party will "depart" in a very short time. All the Death Knights, plus Lord Soth, are capable of casting fireball spells of high potency. They are also highly resistant to spells themselves.

Do *not* use fire shields in this instance. Maybe the fiends are simply conjuring the fire straight from hell, but, simply put, fire shields just don't work against their fireballs. I found that out the hard way. White mages should use Globe or Minor Globe of Invulnerability. Clerics in the party should cast Fire Resistance on everyone else. Globes protect absolutely against fire and the Fire Resistance spell will reduce damage to survivable levels.

Cleric protection spells such as Bless, Prayer and Protection From Evil are also handy. A few lightning bolts to slow down the golems doesn't hurt. Further, by *all* means, try your own spells against the Death Knights. Sometimes, their magic resistance fails and one will get through. Expect a tough fight.

Usually, this is where a "Gold Box" game would more or less end. However, there is more here than meets the eye. A couple of special areas, previously hidden, now open up to you. These have nothing to do with the game proper, but serve as additions to the game which give you something to do once the big fight is over.

Trek up, way up, to the extreme northwest corner of the map, and take on Dave's Challenge. In some ways, this is harder than the big one with Soth. Be prepared for a lot of severe fighting. This is the one place where having a thief to detrap is useful. If you don't have one, choose the person in the party with the most hit points, let him suffer the damage and heal him up later.

Don't overlook the Banshee pit, either. That's where all the good stuff is located. How much you get depends on how long a selected character can last in that hell hole. Some might be able to last a long time. A protection from evil spell might be useful here.

On your way back from this lovely place, you'll probably hear about another delectable spot and a mad Dwarf. This one is practically a vacation after the Challenge.

Also, during the game, make sure you wander all over the countryside. There are several little encounters, tucked away here and there, that are not noted on the map. By doing some thorough exploration, however, you should be able to "dig them up."

Death Knights advances the basic mechanics of the "Gold Box" games by improving the handling of spells. Generally, you tend to use the same spells most of the time, and it gets annoying having to rummage through the spell lists to pick them over and over again for rememorization. In *Death Knights*, the program remembers what spells you had and will re-memorize all of them for you, without forcing you to go through the spell lists. This makes life much easier. Of course, you can certainly change the spells at any time.

Speaking of magic, for those who are not familiar with the world of Krynn, this is an *AD&D* variant. While the game follows most of the rules of *AD&D* first edition, the magic system is somewhat different.

Mages are divided out into Red (neutral), White (good) and Black (evil) robes. Not all mages have access to the same spells. Some, such as magic missile and fireball, are common to all spellcasters. However, only White mages can learn the Globe of Invulnerability spells, while only Red ones can learn Knock and Dimension Door. So it's best to have at least one Red and one White mage in your party.

You also need to keep an eye on the rising and setting of the three moons (red, black and white, naturally), as these affect the saving throws, spell levels and bonus spells for the different mages. It is particularly useful to watch for when the moons were full, so all of your mages can memorize those extra spells (which can be of any level).

Documentation is the usual good job, although — yet again! — the word lookups are done in the paragraphs of the "Adventurer's Journal." This is extremely annoying, as it is almost impossible not to read the entire paragraph once you start looking through for the words. By this time, we had really hoped for a better approach.

In general, there is a humdrum feel to the game. We've been this way before and play tends to have a mechanical quality. There are no puzzles to speak of, little scope for true role-playing and even the side quests begin to look depressingly similar after awhile.

So, perhaps it's just as well that SSI is now experimenting in new directions with their **Legends** (*Eye Of The Beholder*) line and the rumored *Citadel of the Black Sun* product. Something is certainly needed to freshen up the *AD&D* series which, like most entertainment product lines which depend on sequels, has fallen into a predictable rut. *Death Knights* isn't a bad game; it's merely so much like all the others that anyone who has played them could almost play this one in his or her sleep.

That's it for this peek into the crystal ball. Remember, if you need help with an adventure or CRPG game, you can reach me in the following ways:

On Delphi: Visit the GameSIG (under the Groups and Clubs menu). **On GEnie:** Stop by the Games RoundTable (type: Scorpia to reach the Games RT). **By US Mail:** (you must enclose a self-addressed, stamped envelope if you live in the United States) Scorpia, PO Box 338, Gracie Station, NY 10028.

Until next time, happy adventuring! **cgw**





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There's a Saga

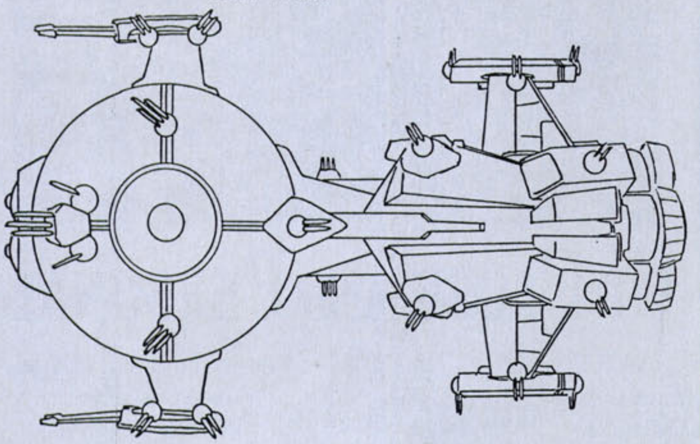
Secrets of the Wing

by Alan Emrich

Kilrathi Dreadnought: The Sivar

Named after the Kilrathi warrior god, this unusual warship was commanded by Admiral Thrakra, son of the Kilrathi Emperor. This was the flagship of the strike fleet that attacked the Goddard Colony in *Secret Missions 1*.

Length:	550 meters
Mass:	25,000 tonnes
Maximum Velocity:	200 kps
Cruise Velocity:	150 kps
Maximum Yaw:	1 dps
Maximum Pitch:	1 dps
Maximum Roll:	1 dps
Ship's Weapons:	Turreted Lasers (6), Image Recognition Missiles (quantity unknown).
Ship's Armor:	Fore Shield: 27 cm equivalent; Aft Shield: 17 cm equivalent; Front: 28 cm; Right: 26 cm; Left: 26 cm; Rear: 14 cm.



All good things must come to an end, but putting that end off as long as possible is certainly the way to go. To that end, players of **Origin**'s highly popular *Wing Commander* (rated #1 on our Top 100 Games Chart) will want to investigate the two "Secret Mission" disks currently available. Prolonging one's tour of duty on the intrepid *Tiger's Claw* in the *Wing Commander* universe, players can generate new characters to face the challenges these missions pose or take their heroes out of the original game's Vega system and have them face these daring challenges.

Don't Dream It, Be It

Here lies one of the greatest virtues of *Wing Commander*: the music and graphics aside (and they are both cutting-edge), this would be just another space arcade shoot-'em-up were it not for the engrossing cinematic storyline and strong protagonists with whom to empathize. Whether through brilliant foresight or dumb luck (inside sources suggest the latter), **Origin** has hit the lottery with the impassioned characterizations in *Wing Commander*. The likes of "by the book" Angel, "cold as freon" Iceman, "one with karma" Spirit, "wild man" Hunter and the rest of crew add a personal role-playing element to the game that can best be explained by the phenomenon of players so strongly identifying with their characters that they almost "become" the role they play.

Therefore, not only does a player get more heart-pounding, joystick-breaking arcade brushes with simulated slaughter in space in *Secret Missions*, but one *also* finds out about the continuing ordeals of the *Tiger's Claw*, its vaunted and much beloved crew and the ever shifting fate of the Terran-Kilrathi war. Whatever it is that keeps people tuning into soap operas and walking into video arcades, these two supplements deliver plenty of both.

As the World Burns

TITLE:	The Secret Missions and The Secret Missions 2: Crusade
SYSTEM:	IBM
PRICE:	$29.95 each
COPY PROTECT:	Document check
DESIGNERS:	Aaron Allston, Steve Cantrell, Ellen Guon and John Watson
PUBLISHER:	Origin Austin, TX

From any point during operations in the Vega system, the player's character may be called upon to participate in *The Secret Missions*. Essentially, no news is bad news when communications ceased from the Goddard colony. The root of this little snafu with the 250,000 Terran colonists there is that the Kilrathi have developed a "Death Star"-like planet-busting weapon and were "just testing it out" at Goddard. Stealthily following the Kilrathi strike force back into their own space, the *Tiger's Claw* must sneak up on the enemy fleet, cut through it and destroy the new Kilrathi "ultimate weapon." This, the crew bemoans (and the player soon discovers), is just short of a suicide mission.

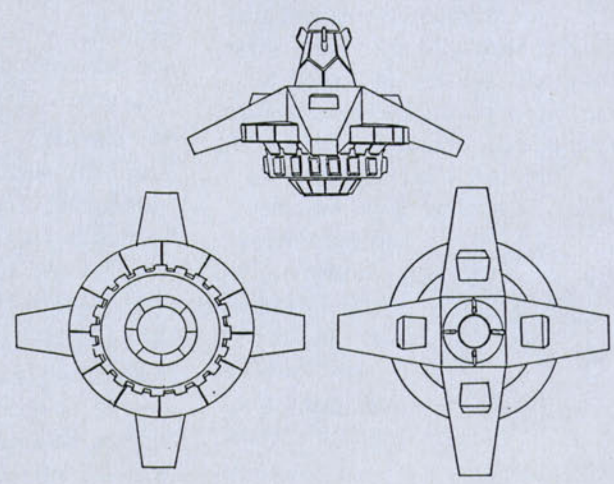
Little New Under the Suns

Unfortunately, the basic *Wing Commander* game system was not modified by the addition of this supplement. While still delightful, all a player really gets is MOTS (More Of The Same). Still, the missions are considerably harder (read: the odds, in terms of

Kilrathi Star Post

Designed to be used as a refueling station, fighter base or a field command post, this starbase design is found exclusively in Kilrathi space, most recently in the Vega sector campaign and during Operation Thor's Hammer (*Secret Missions 1*). Lightly armed and armored (for a starbase), these Star Posts are vulnerable to major attacks.

Length:	550 meters
Mass:	40,000 tonnes
Maximum Velocity:	Stationary
Ship's Weapons:	Turreted Lasers (4), Friend or Foe Missiles (quantity unknown).
Ship's Armor:	Fore Shield: 20 cm equivalent; Aft Shield: 20 cm equivalent; Front: 18 cm; Right: 18 cm; Left: 18 cm; Rear: 18 cm.



Born Every Minute

Commander *Secret Missions*

and Mike Weksler

sheer numbers, are stacked more heavily in the Kilrathi's favor) and, at least, one particularly innovative encounter with a Terran "ghost ship" (and a zillion hostile Rapiers) lends an air of excitement to the mounting climax in store for a player during the final flight into glory.

Those final missions involve disrupting Kilrathi supply lines in order to slow the departure of the dreaded *Sivar*-class dreadnought (which harbors the insidious planet-busting beam stitched within the alloyed sinews of its bulbous catgut). Naturally, the climax requires one to cut through wave after massive wave of Kilrathi defenders and pound relentlessly on this enemy battleship until it exclaims those famous Kilrathi words of defiance, "My offspring will avenge me!" (Well, it beats screeching, "You sank my Battleship!")

Interestingly, in spite of playing *The Secret Missions* straight through to victory, these reviewers *did* encounter the eight-man Terran Confederation fighters promised on the back of the game box, but didn't even notice that they were different from any other Terran capital ship needing escort. Oh, there were upgunned and better protected enemy fighters to face, to be sure, but nothing new for the Terrans.

Holy Crusades, Catman!

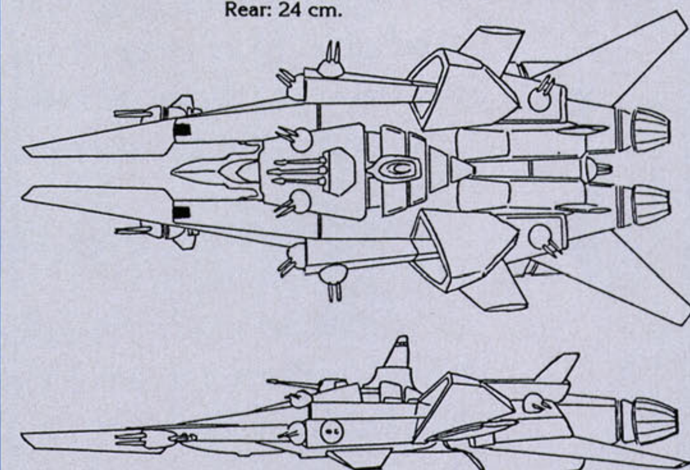
After completing operations in the Venice sector of *Wing Commander* (or the Vigrid sector of *Secret Missions*), the player may transfer his heroic persona to the perils which await in the Firekka system, Antares sector. While the Terrans have been cultivating this backwater "nowhere" region of space in order to gain an alliance with the sentient avians (or "bird people"), the Kilrathi have noticed and taken the ultimate offense.

Unlike the gameplay in *Secret Missions*, the second offering has improved AI (with an entirely new executable program). Thus, the Kilrathi strength no longer relies strictly upon the traditional computer game fallback of sheer numbers, but now incorporates varied and improved tactics among their pilots. The Kilrathi Imperial Guard (the "Drakhai") await at virtually every turn to menace players with a special vengeance. Fortunately, though it might be hard to notice (since everything is relative), the AI for player's wingmen is also improved. One must watch carefully in the heat of battle to really see this new element, but it *is* there. In effect, the challenge of playing is greater, yet the odds of winning are slightly better due to the decreased numbers of enemy fighters at each encounter.

Kilrathi Carrier: The Snakeir

Several of these carriers were sighted in the Firekka System during the Kilrathi "Sivar-Eshrad" during the *Secret Missions 2: Crusade*.

Length:	650 meters
Mass:	30,000 tonnes
Maximum Velocity:	150 kps
Cruise Velocity:	100 kps
Maximum Yaw:	1 dps
Maximum Pitch:	1 dps
Maximum Roll:	1 dps
Ship's Weapons:	Turreted Lasers (6), Image Recognition Missiles (quantity unknown).
Ship's Armor:	Fore Shield: 37 cm equivalent; Aft Shield: 37 cm equivalent; Front: 28 cm; Right: 36 cm; Left: 36 cm; Rear: 24 cm.



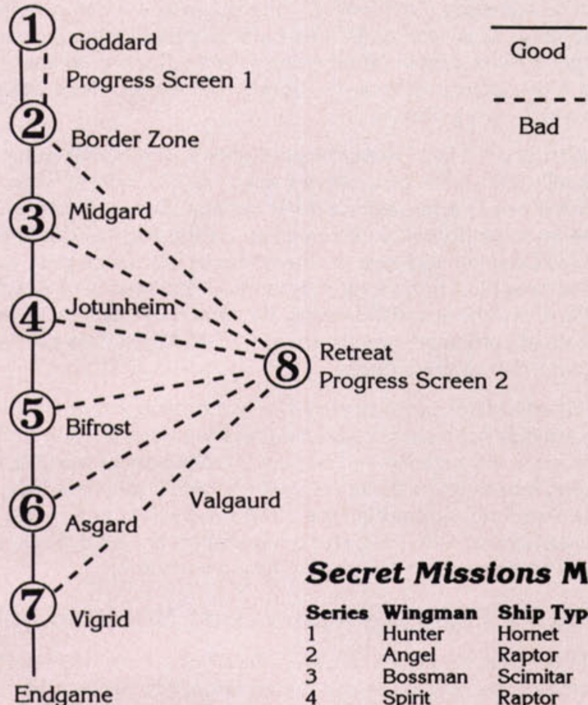
It is also important to note that while *Secret Missions 2* was being designed, the storyline for *Wing Commander II* was also being developed. Thus, the characters were written in such a way as to connect them between the two *Wing Commander* games. Prescient players will see foreshadowing in the discovery of the alien race known as the "double helix" in *Wing Commander* and the derring-do of Maniac. Prince Thrakhath of the Kilrathi (the Emperor's grandson) becomes an important character in the story ahead (is he so reasonable that one could actually *negotiate* with him?), as does the ever-competent Jeannette Devereaux (Angel)... but we digress.

It is the player's march to glory in the Firekka system which will determine the fate of these avian allies. En route, the player will encounter two new wingman to fly with (the charming Jazz and a character named Doomsday who is the human equivalent of Marvin the Paranoid Android) and pilot a souped-up, captured enemy Dralthi in "undercover" assignments. These latter fighters are most interesting, as one gets to read a bit of Kilrathi writing on the instrumentation and tries to get a feel for cat-ergonomics. In the end, though, the odds are too long for the Tiger's Claw to overcome this devastating armada comprising the entire Kilrathi fleet (pulled into the sector to take part in a military/religious ceremony). So, the trick is to support the guerrilla efforts of the

Kilrathi Fighter: The Dralthi Mark II

An improved version of the Dralthi fighter, this ship was captured and flown by human pilots in the Antares Sector in *Secret Missions 2: Crusade*. (This fighter is visually identical to the Mark I Dralthi pictured in the *Joan's Fighting Spacecraft* supplement of *Claw Marks*.)

Length:	28 meters
Mass:	14 tonnes
Maximum Velocity:	400 kps
Cruise Velocity:	230 kps
Maximum Yaw:	10 dps
Maximum Pitch:	14 dps
Maximum Roll:	10 dps
Ship's Weapons:	Mass Driver Cannon (2), Heat-Seeking Missiles (3), Dumb-Fire Missiles (2)
Ship's Armor:	Fore Shield: 6 cm equivalent; Aft Shield: 5 cm equivalent; Front: 7.5 cm; Right: 5.5 cm; Left: 5.5 cm; Rear: 7 cm.



Secret Missions Map

Series	Wingman	Ship Type
1	Hunter	Hornet
2	Angel	Raptor
3	Bossman	Scimitar
4	Spirit	Raptor
5	Paladin	Raptor
6	Iceman	Rapier
7	Knight	Rapier
8	Maniac	Scimitar

Firekka by distracting the Kilrathi as long as possible. In any case, while fleeing, one begins to get the idea that Maniac is definitely slipping *big time*.

Born-Again Wingmen

At the commencement of either *Secret Mission* game, all the available wingmen are assumed to have survived any previous funeral ceremonies. Thus, even if the player has managed to kill off half the crew of the Tiger's Claw, they will all be back in the bar, relaxing in their own idiom. One crew member, however, dies rather tragically "off-screen" in *Secret Mission 2*, perhaps an important plot device for the next game in the *Wing Commander* series. On a slightly more frustrating note, several players have complained that in *Secret Missions 2* fellow pilots have been dying — unannounced — "off-screen." In fact, both of these reviewers experienced this bug when it killed off Hunter and Angel during their respective tours of duty (Perhaps they were "bitten by the bug?"). The result of this fatal case of "cat scratch fever" was that both "heroes" were forced to fly solo through several harrowing missions. (Perhaps this is why one of their characters managed to win the Terran Medal of Honor upon completion of the campaign!)

Players should note that they do not have to transfer veteran characters to these *Secret Missions* in order to succeed at them. Fresh-faced Second Lieutenants are just as likely to triumph as veteran Lieutenant Colonels. Rank has its privileges, but not when campaigning in *Wing Commander's Secret Missions*.

Narrowing the Plot Lines

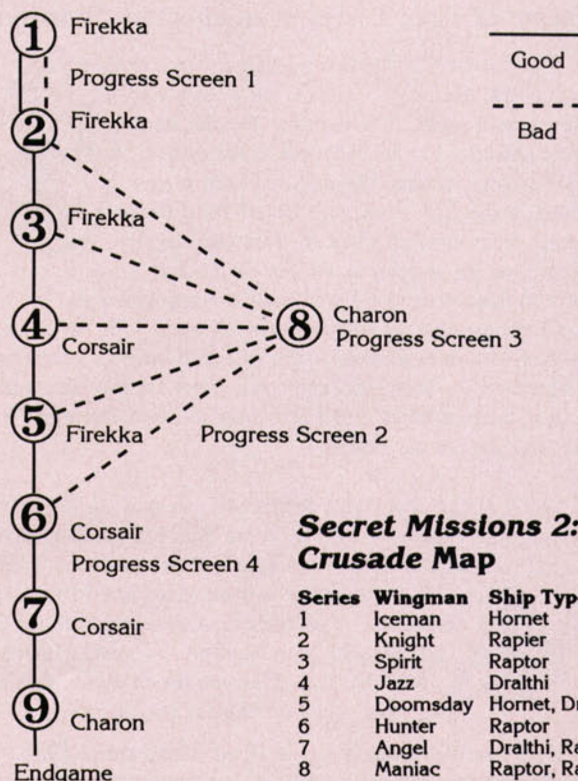
One discovery made by players in either *Secret Mission* package is the "Mission Selector" which allows players to replay any mission in any system found in the original *Wing Commander*. This is displayed as a map full of circles connected by solid lines (for success in a given system) and dashed lines (indicating the path of failure). Players can tell at a glance that the storyline has a built-in tolerance for failure within the various systems, allowing the player to get "back on track" and still win in the end.

In contrast, however, lie the paths to success in the two *Secret Missions*. Completely linear, there is no getting back on track after virtually any failed mission. This means there will be a *lot* of replaying certain difficult missions as players struggle through the inflexible plot line. Some of the more challenging missions might take a dozen or more joystick-strangling, frustration-packed attempts before a player successfully clears all the hurdles. Still, if one is to see the cinematic victory screens, one can never miss a beat in terms of Nav Points and Capital Ships (the criteria for all successful missions).

Narrowing the Odds

Here are a few useful tactics, tips and techniques for those struggling with increased difficulties presented in the two *Secret Missions* supplements. Against greater odds, straight-on shootouts are not as viable as they used to be. A bit of *strategy* is needed....

Keep formation! This tactic is used to preserve a wingman's heavy-duty firepower for later encounters when it is needed the most. When told to attack, the first thing wingmen tend to do is squirt off their missiles at the earliest opportunity. To preserve those missiles for use against enemy capital ships, keep the wingmen in formation and never let them loose. Husband their precious missiles for the most hazardous parts of the mission.



Secret Missions 2: Crusade Map

Series	Wingman	Ship Type
1	Iceman	Hornet
2	Knight	Rapier
3	Spirit	Raptor
4	Jazz	Dralthi
5	Doomsday	Hornet, Dralthi
6	Hunter	Raptor
7	Angel	Dralthi, Rapier
8	Maniac	Raptor, Rapier
9	Maniac	Raptor, Rapier

Kilrathi Experimental Fighter: The Hhriss

The newest in Kilrathi spacecraft technology, the Hhriss combines strong firepower with a heavy layer of an experimental lightweight alloy armor. This fighter was first encountered in the Antares Sector in *Secret Missions 2: Crusade*.

Length:	28 meters
Mass:	22 tonnes
Maximum Velocity:	380 kps
Cruise Velocity:	300 kps
Maximum Yaw:	12 dps
Maximum Pitch:	10 dps
Maximum Roll:	15 dps
Ship's Weapons:	Mass Driver Cannon (2), Neutron Guns (2), Heat-Seeking Missile (1), Image Recognition Missile (1).
Ship's Armor:	Fore Shield: 15 cm equivalent; Aft Shield: 18 cm equivalent; Front: 18 cm; Right: 17 cm; Left: 17 cm; Rear: 14 cm.

Attack my target! This tactic is like hurling the ultimate "smart" weapon at a single enemy ship. If one must destroy a large enemy vessel, acquire it on the tracking computer (locking it up is not necessary) and order the wingman to "Attack my target." The wingman will continue to attack that target, unwaveringly, until either it is destroyed or he is forced to break off due to damage. It is important to note that even should the player later acquire *another* target, the wingman will continue to attack the one which he was ordered to destroy and will not change targets. Protecting one's wingman, at this point, is crucial to his survival. Thus, it is a good idea to unleash this tactic only after enemy fighter cover has been thinned out.

Lock on for relentless pursuit. Except when defending a capital ship, an important object is usually to destroy enemy fighters. Thus, softening ("reddening") one up so that it can run away to recharge its shields and come back is a bad tactic. Instead, once a good hit is scored on an enemy fighter, lock onto it and never let it go until it's destroyed. Pit bulls get the job done against cats (almost) every time.

Thrust past 'er. Enemy heavy fighters with strong guns will usually kill a pilot who attacks head on. The advice is: Don't do that! If one is approaching head on, aim slightly to one side of the oncoming pack, keeping them on the edge of the front screen display and kick on the afterburners. Once past, get behind one, hit it hard, lock it up and do the "dance of death" with him. Even the smartest enemy has problems with deflection shots at combined speeds around 1,500 kilometers per second, so use that to advantage.

Minefields at warp speed. The worst thing about traversing minefields is painstakingly dodging the mines floating in them. To relive the anguish and reduce the chances of mistakenly flying into them in multiples, one should simply haul jets. Aim for the Nav Point and punch the afterburners. Oh, one might hit, but seldom more than that, and often that hit is on the back shield with no damage to the armor. Why risk more?

Joan's Fighting Spacecraft Supplement

In the best traditions of *Claw Marks*, the facts and figures for some of the new ships and fighters found in the two *Secret Missions* supplements are presented in this article. **cgw**

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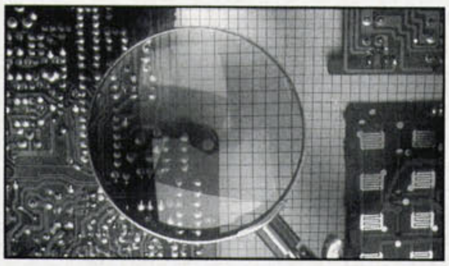
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The Circuit Writer

The Frustrations of a New Technology

By Steve Witzel

For the last several months, I have been accumulating a collection of CD-ROM programs, always looking forward to seeing the latest technology. It was particularly exciting to see the entire repository of Sherlock Holmes literature contained on one ROM. I jumped for this one, as a lot of my youth was spent reading (and watching) Mr. Holmes. As soon as the ROM came in, I took it to the office to look at it (not having a player of my own — more on this later). It was great to have the entire text available at my beck and call. The ability to search for this character or that character was great... for a while.

Unfortunately, reading chapter after chapter from the VGA monitor gets tedious, however. No longer could I lay on the couch, eat an ice cream cone or sit outside by the stream and read. I was stuck in front of the monitor. After about three hours of Holmes and Watson, the CD-ROM was carefully removed from the drive and placed into its little jewel case — never to be opened again.

Still drawn to this new technology, a PC-User Group public domain disk was in order. This disk contains more public domain software than a sane person could possibly use. There are great utilities that I never use. After looking at scores of this and dozens of that, playing with this one and testing out that one, the disk went on the shelf (in the bedroom closet — to protect it from my preschoolers). I decided that, since I've never used much in the way of PD software anyway, having a lot of it at my fingertips was no advantage!

Now, for the frustrating part. My collection now includes two encyclopedias, the New York Library Reference Collection, a world atlas, IBM's wonderful Mammals encyclopedia and game collections from several different companies. All this, and I *still* don't have a CD-ROM player for my computer! For the last seven months, after looking for the perfect player through catalog after catalog, I've discovered that the perfect player doesn't exist. In my office, I have a first-generation player that was picked up at a bargain price. My favorite dealer has tried to make it work with about a dozen different interface cards, but still no luck. The search for a new player is still on, but narrowing. The CDR1000 from Tandy should be shipping by the time this column hits the press. Retailing for under $400, it just might end the search.

This coming year should be a great one for CD-ROM software. Currently, there are several disks that contain compilations of existing programs. This has a major benefit in that many disk-based games take two to five megabytes of precious hard drive space. Booting the programs from the CD-ROM means that the valuable disk space will not be lost. If, perchance, the hard drive should be needed for a particular game to run faster, it is much easier to load the software from one CD than from eight floppies. It can, then, be deleted when one is finished using it because it is so easy to install and will not be such an inconvenience should you decide to re-install it. In addition to compilations of disk-based games, the software will fully take advantage of the vast storage capability (680MB) of the medium. Programs with stereo sound tracks will become the norm, rather than the exception. VGA graphics will become much more abundant than conventional disk-based storage has allowed. I have hopes that scenarios will become smoother and games will become much more interactive since there is much more room on the ROM to flesh out both the central storyline and alternate branches of the story.

In fact, the CD-ROM has more potential to impact computer users than the hard disk did. Can any computer game player imagine going back to computing without a hard drive? I can't. Somewhere out there someone is working on a new type of program that could not have been done without CD-ROM's vast storage capability. When it is finally released, I certainly will be one of the first in line!

What to Look For in a CD-ROM

First, one must decide if the drive is to be mounted internally or not. If an internal CD-ROM drive is desired, the computer must have an empty disk drive slot. If not, an external drive might be the solution.

External drives come in many different sizes, from bulky units about half the size of your computer to small units that convert to "Walkman"-type portable CD music players.

First-time buyers need to make sure they purchase a "kit" that includes an interface card *and* CD-ROM software drivers. Don't get caught in the trap that this writer did.

New CD-ROM buyers should look closely at "package deals" that include software bundles with a full kit. Some of these packages are too good to pass up. It is also worthwhile to make sure that the player has a headphone or audio-output jacks. Most players do, but there are some older ones that don't.

The world of CD-ROM not only opens the research possibilities manufacturers have touted sell the units, but the expanded sound and visual capabilities portend a potentially richer and more satisfying gaming experience in the long run. Gamers who wait too long may regret missing the revolution. **cgw**

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The Graphics "Are" the Interface

Design Notes on Rules of Engagement

by Maurice Molyneaux

Maurice Molyneaux is co-designer and art director of Rules of Engagement *and has served as computer graphic artist on* **Omnitrend**'s Breach *(Amiga version),* Paladin, Universe III *and* Breach 2. *He has previously published in the official* Star Trek: The Next Generation *magazine series.*

Omnitrend Software has introduced a new and intriguing element in their latest title, *Rules of Engagement*. Not only can the game be played as a "stand-alone" game of starship-to-starship combat, but players can also simulate boarding actions by using *Breach 2*. This article shares the design process that led to the graphic design and interface design merging in *Rules of Engagement*.

Delegate, Delegate, Delegate

In *Rules* the gamer takes on the role of Fleet Commander of Federated Worlds starships on a mission to some remote corner of the Local Group. Although the Commander has an entire fleet at his disposal, only the flagship is under his *direct* command. To control the other ships, he must send orders to his subordinate captains, each of which has a distinct personality which determines his actions. Hence, the Commander must consider *who* is commanding the ships, as well as the strengths of the ships themselves, when assigning them to various tasks.

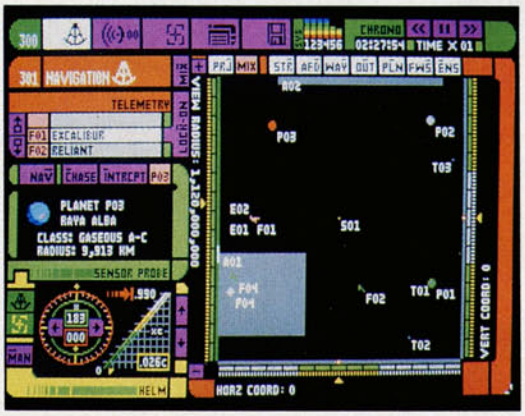
Interface Problems

In all of the previous **Omnitrend** games illuminated by this artist's work, the graphics have been primarily of the block/tile design, to facilitate both game design and the requirements of the graphics displays (to work in both EGA and VGA, for instance). *Rules of Engagement* took a different tack. Rather than displaying a "cockpit" or "bridge" screen for the player, the idea was to fill the game screen with simulated control panels, so the player would operate the game as if seeing the actual controls of the ship.

This turned out to be no small feat. When getting down to it, the on-screen interfaces of most games are not a major part of the display. A set of controls or readouts around a "window" or viewer is quite common, as are "hotspots" within a screen which serve as controls. This game will be different in that, since the player is to be faced with the actual starship controls, the entire screen would serve as interface!

Obviously, then, one cannot simply draw flashy representations of control consoles, complete with all kinds of metallic features and blinking lights (such as one has seen in numerous computer games before). Given the advances in computer interfaces in recent years, it would seem terribly silly for a futuristic starship to be overrun with 1950s toggle switches, copious readouts, levers, keypads and the like. In modern jet fighter cockpits the trend is toward multifunction displays and a simplification of instrumentation. Furthermore, discussions about man-machine interfaces have recently centered upon devices like control panels in which the "buttons" would actually be graphics on touch-sensitive screens. Even today, one can find all-in-one remote controls with an LCD touch screen in place of buttons. Touch the button for VCR, and the display is remapped for VCR control, touch Stereo, and the controls for one's audio system begin to function.





A "Real" Science-Fiction Look

This thinking eventually resulted in the concept of presenting the player with a multifunction display/interface on the starship; no portholes and no screw-laden consoles, just the ship's computer interface. On the "real" ship the crew would have touch-sensitive displays. Since **Omnitrend** couldn't expect players of the game to have these, they settled for using the mouse in place of an actual hand for touching the controls.

In devising a workable interface, this designer almost inadvertently began to formulate the "look" of the game. The sheer number of controls meant that much of each panel was made up of "buttons." This presented the entirely different problem of making each "button" look both uniform and distinctive at the same time. Toying with the idea of making the controls detailed, with raised buttons and such, was one thing, but making the controls look more like 3-D objects and less like a computer display tended to defeat the design goal of simulating a multifunction control display. To maintain this "feel," the graphics needed to look almost stereotypically "computerish."

If the Shoe Fits

The decision to go this route was reinforced by the fact that these graphics had to work not only using the limited 16-color palette of EGA, but also under the stifling limits of 4-color CGA. Areas of flat, bold color seemed the only way to go. VGA was simply out of the question because the game required eight graphics buffers, and going from 32K 16-color screens to 64K 256-color screens would have doubled the graphic memory consumption and chewed up most of the RAM the game would need.

Logical. Perfectly Logical....

The biggest challenge was assembling the graphic elements so that a player could easily understand the grouping of related controls and displays, thus being able to follow the "flow" of control operations. The primary solution to this was what this designer calls the "Inverse 'L' Bracket": a thick horizontal bar set above a set of related controls and featuring a vertical "leg" which borders and defines the "height" of the group.

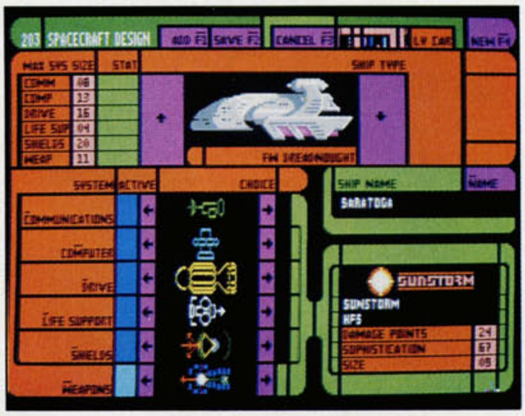
In essence, it's like grouping everything in two-sided boxes. Admittedly, these 'L' brackets were inspired by similar elements on the "companel" computer panels seen on TV's *Star Trek: The Next Generation* (and designed by Michael Okuda), but they were used only because they work visually and seemed to be the best solution to the problem of grouping controls. On a crowded screen with limited resolution, every pixel counts and only having to draw two sides of a box instead of four made sense.

In addition to the "L" brackets, a way was needed to link large numbers of items to single buttons — for instance, linking a list of ships to a "Probe" button. The solution to this was sort of a stylized curly bracket like one finds on a computer keyboard ("{}") on which the stem could be "moved" vertically to attach the group within the bracket to a selected item on the "stem" end.

Even with all of this grouping it would be difficult to tell a button from a label. Forcing users to try to differentiate a control from a readout was not a good idea. Color-coding the displays seemed the best solution, with active controls in specific colors and all else using other hues. This designer decided that the primary buttons would be magenta because that color was easily spotted even amidst a sea of garish pigments.

Colors That Are Right on the Button

This turned out to be ineffective because there are essentially *two* types of user-selectable buttons in the game (the "action" buttons and the "selection" buttons). An action button actually *does* something like fire a missile or call up a display. Conversely, a selection button merely specifies which item of several is the one to be carried out or acted on, such as selecting which ship to use from a list. To keep these controls distinct, the action buttons were kept magenta and the selection buttons became bright blue. Buttons that were "pressed" would light up even brighter.



This color-coding scheme was carried to other items. There are mini-panels that can pop up over a primary display which are much like the "alert boxes" used in windowing interfaces in that when the box is present, one cannot do anything but what the box controls allow (it usurps all control). The trouble was that parts of panels changing is so common in the game that a user would be hard pressed to know, when a new set of controls popped up, if the new controls were part of the current panel or another "usurper." Color-coding saved the day again. All usurper boxes are bordered in yellow with a top bar in green. When a usurper pops up, the colors make very clear what it is. The color coding is used less noticeably in four-color CGA, but it's still there through use of dithering and so forth.

The decision to use color-coding appears to have been the right one. In watching novices take to the controls in the game, one notices they tend to have trouble *until* the moment they realize that they can only work with the magenta and blue buttons.

Once this concept is grasped, novices have little trouble operating the interface.

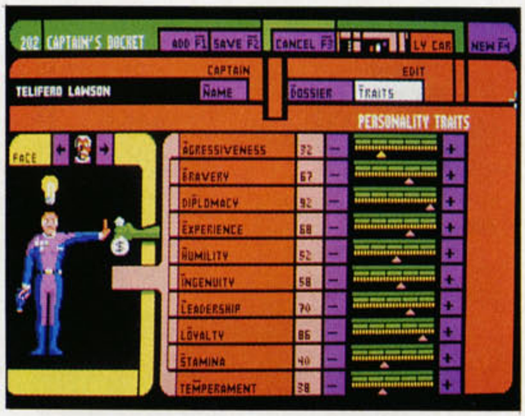
Keys to Game's Undoing?

As the above problems were being solved, another popped up: the need to make a keyboard interface for mouseless PC players. This was a *major* headache because the finished product would feature dozens of screen display modes and literally *hundreds* of buttons. It was impossible to assign individual keys to each control, since there were easily six times as many buttons in the game than a PC keyboard has keys. Even if that problem were somehow eliminated, we could not possibly expect any person to memorize so many keystrokes, nor force them to constantly refer to a reference card in the heat of battle. What was required was to somehow indicate the keys right on the screen *without* ruining the carefully designed look of the panels.

The solution was to use one of the letters/characters on the button labels themselves as the keyboard equivalents, and indicate the keys by placing a small dash (overscore) above those characters. This put the keystrokes right in front of the player's eyes at all times and made the actual controls more obvious than ever.

The Single Exception

The one and only place where the touch-screen ideal was put aside was for the self-destruct controls. Since this was such a critical and dangerous function, something drastically different-looking was in order. This designer's perception was that the destruct controls would be hidden "under" the Tactical panel of the game. When accessed, part of the touch display would slide open and provide access to these controls, which were rendered as hardware, complete with all the flashy highlights, screws and such that had been rejected for the game itself.



When the panel opens, one sees a small warning screen, bits of exposed circuitry, some buttons, and a handle.

The only trouble here was trying to figure out how the user should operate the thing! The interface thus far had been remarkably consistent from place to place. Now, suddenly, the user was going to be faced with (simulated) hardware and not a touch display. Pulling down the "Destruct" handle was simple enough to figure out, if one had a mouse. If not, how would he pull it? This problem was overcome by having all of the button tops in the destruct panel magenta with overscored numbers, matching the other buttons in the game. Then a "Pull" tag was hung from the handle (also in magenta with an overscored P) which would act as the user's switch. Mouse users would simply click on the tag, whereas keyboard users would just type the letter.

Epilogue

In most of electronic gaming the artist is a mere illustrator, hired to create pictures which will accompany the code. Such was this artist/designer's experience *prior* to this project, but *Rules of Engagement* was a whole new ball game; one where the artist's input was so integral to the game that the design of the graphics actually dictated the user interface. **cgw**

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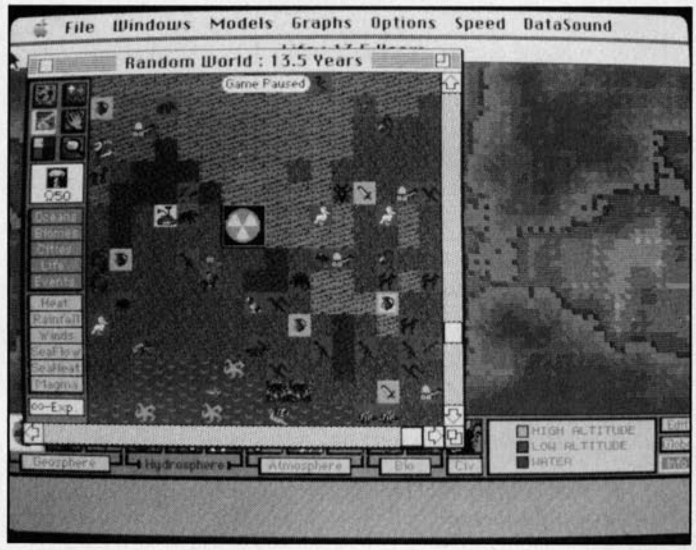
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The Care and Maintenance of *SimEarth* Robots

by Allen Varney



They're on the way! Bzzzt-buzz-click-whirrrr....

Organic life-forms who enjoy *SimEarth*, the "planetary spreadsheet" from **Maxis**, may already suspect the truth. The Winter 1990-91 issue of the **Maxis** newsletter confirmed it, although it was carefully hidden in tiny print on the last page. However, keen carbon-based visual sensors discerned the news: "There's a secret, undocumented life-form in *SimEarth*...."

Who are these newcomers? Robots! Many players have found these cybernetic guys during the final steps on *SimEarth*'s (r?)evolutionary scale. As a point of amusement, don't be left out during the coming mechanized takeover!

The Nuts and Bolts for Making Robots

Raise a *SimEarth* civilization to Nanotech Age or just plant a Nanotech city. Next, bomb the city with an Atomic Test. Pulverize it! After a brief time, the Nanotech crater should spawn a crude robot on halftrack treads. (Presumably, it's a refugee from the irradiated city.)

Check the robot's characteristics with the magnifying glass. Note that while robots can survive in any habitat, they must compete for resources with other life forms, so players may want to help them along by making the world unbearable for other life forms. Take the planet and heat it, freeze it, fill the air with dust or send plagues across the land. The robots don't care. Buzz-wheep-wheep-wheep....

Code of the "Life" Maker

Somewhat like the robotic civilization described in James P. Hogan's *Code of the LifeMaker* (who actually attained philosophical pursuits and a crisis of faith), the "tin cans" in *SimEarth* start out dumb, but can evolve into civilized life-forms! The early "tread" models have IQs on the order of home appliances. However, robots can evolve through *sixteen* stages, just like other life-forms. On the Biosphere Model, pump up the Split Rate and bring down the Mutation Rate. Soon the 'bots will develop better treads, then actual wheels. By the time they achieve legs, they should achieve sentience akin to really smart home appliances or even computer game players. Note, though, that even if one's robots develop a civilization, the less-intelligent halftrack models still inhabit the wilderness, like lower life forms.

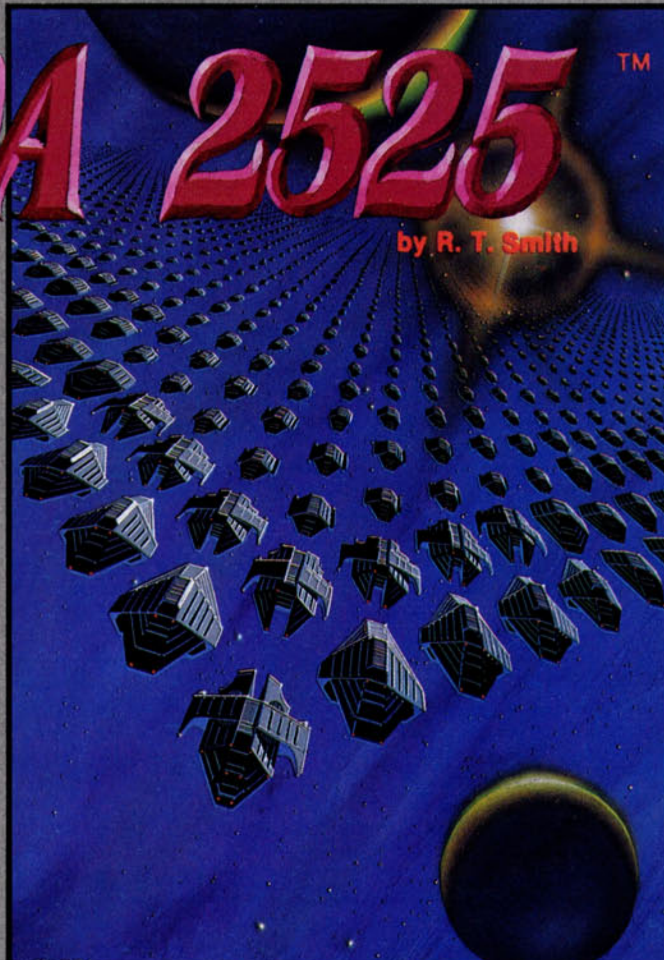
- The 'bots are viable in all habitats, including ocean shelf and (sometimes) deep water. If you allow it, they expand to cover every single square on every landmass, turning your world into metallic wallpaper.

- In a world of robots, the Food line on the History window hits the top of the chart and stays there, even if one kills off everything alive on the planet. Why? Because robots are, themselves, food for other robots. In other words, they dismantle one another for parts!

- Robots won't show up on any graph or window, except as a spreading black blotch in the Map window's Life view. However, one can blank out the robots from the screen by turning off the Life Data Layer button in the Edit window, although the Biosphere Model Control Panel still affects robots.

- Robots are immune to plagues and other disasters that would cripple feeble flesh (robots are stopped by them only for a moment). 'Bots can salvage a world that is otherwise a dead loss. Too bad players can't place them from the menu.

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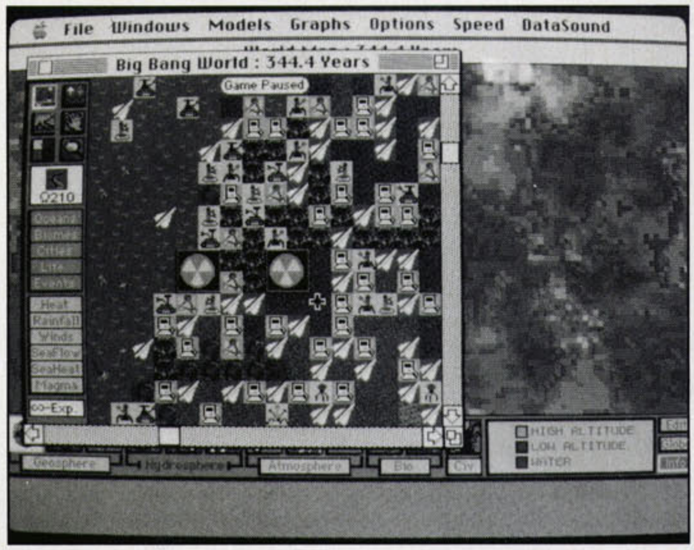
It is June 5th, 1944. You are in command of U. S. VII Corps at Utah Beach. Your objective is to link up with U. S. V Corps at Omaha Beach and capture Cherbourg.

It is June 5th, 1944. You are in command of LXXXIV Corps. The Americans have landed at Utah Beach. Your objective is to drive the enemy back into the sea.

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● By the same token, one may soon ask, "How do I get rid of these guys?" Since they're not listed on the life-form menu, players can't use the Extinct Function on robots. One can destroy them piecemeal, like cockroaches, but the disasters inflicted on them may disturb other life forms in the process. Keep in mind, however, that robots don't much like deep ocean. So, in an emergency, players can flood their entire world with ice meteors.

Cybersillies

Generally, robots are a pretty boring bunch, but here are some ideas of what to do with them:

1. Kill the planet but keep the 'bots. Boil the oceans and let them spread out over the ocean floor. Another idea is to freeze the planet and watch the ice cover them. They're still there, buzzing along under the ice (turn off the Biome button on the Edit window to see them).

2. Make the 'bots sentient. A robot civilization, after the briefest interval of Stone Age culture, jumps right up to the Industrial Age. (Which makes sense, right?). Check out the "travelling population" icon. In the Civilization Model, one might be tempted to cut out agriculture; what is food to a robot, after all? Unfortunately, the program treats a robotic civilization like any other; when the agriculture is turned off, the 'bots starve like anyone else.

3. Send the 'bots thataway. A robotic civilization achieves Exodus as easily as any other, perhaps more so. But you'll note one difference: a robotic Exodus takes forever! While your first fleet of robotic Nanotech cities is lifting off, more appear. The cities keep appearing and flying upward, dozens of them. It may take ten minutes to get rid of them all, especially on slow machines. (When the world they leave behind becomes a nature preserve, the preserve includes the non-sentient robots left behind.)

Why do robots Exodus in such numbers? *Star Trek* fans might know, but the rest of us can only speculate about what existing galactic civilizations must think when the nanorobots fly into their sector of space. "Servants at last?" or perhaps, "Oh, please, not again?"

For that matter, what are the robots themselves thinking? Let's hope it's not "Exterminate! Exterminate!" Bzzt-crackle-beep.... **CGW**

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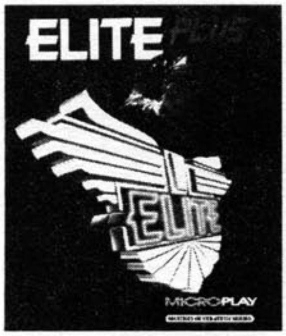
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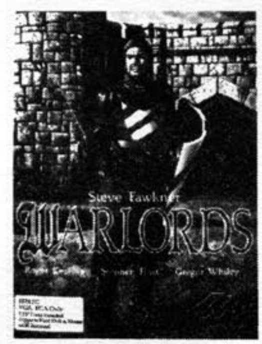
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A-10 Tank Killer (DYNA)	34	34
Conflict Middle East (SSI)	39	-
F-14 Tomcat (ACTIVISION)	28	-
F-16 Combat Pilot (E.A)	19	19
F-19 Stealth Fight (MICROPR)	42	42
F-29 Retaliator (OCEAN)	34	34
Flight/Intruder (S.HOLOBYT)	39	-
Flight Sim 4.0 (S.HOLOBYTE)	39	-
5th Eskrada (SIM CAN)	39	39
Gateway Savage Empire	34	-
Gunship (MICROPROSE)	34	36
Gunboat (ACCOLADE)	-	34
Harpoon v.1.2 (360)	39	39
Harpoon #2 N. Atlantic (360)	21	21
Harpoon #3 Med.(360)	21	21
Harpoon Scen. Edit. (360)	28	28
Jet Fighter (VELOCITY)	42	-
Jet Fighter #2 (VELOCITY)	42	-
LHX Attack Chopper (E.A.)	31	-
M-1 Tank Platoon (MICROPR)	42	42
MBT Centr. Germany (S C)	39	-
MBT North Germany (S C)	39	-
Megafortress (360)	39	39
Nuclear War (NEWWORLD)	34	34
Red Storm Risin. (MICROPR)	34	36
7th Fleet (SIM CAN)	39	39
Stormovik SU-25 (E.A.)	22	-
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GENERAL

	IBM	AMI
Command HQ (MICROPL)	37	-
PowerMonger (E.A.)	-	34
RailRoad Tycoon	37	-
Sim City (MAXIS)	34	34
Sim City Ter. Edit.	15	-
Sim City Set #1 Ancient	23	23
Sim City Set #2 Future	23	23
Sim Earth	45	-
UMS 2 (MICROPL)	37	37
UMS 2/Desert Storm	21	-

SPORTS

	IBM	AMI
Andretti's Racing Challenge	34	-
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Battle Chess 2	34	-
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Indy 500	34	34
Jack Nicklaus Unltd.	39	39
Links	39	-
PGA Tour Golf	34	34
Test Drive 3	39	-
Road & Car #1	16	-
TV Sports Basketball	34	34
TV Sports Football	34	34
TV " " '89 Teams	12	12
TV " " '90 Teams	12	12
Wayne Gretsky	-	34
Wayne Gretsky 2	36	-

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On the R.I.D. card provided toward the front of the magazine, please rate the following games (only if you have played them!) and articles (if you have read them) by using a letter grade scale (i.e. A to F). Just rate the games as if you were an educator. As with the world of education, the scale will translate to:

A = Excellent
B = Above Average
C = Average
D = Below Average
F = Failure

If you wish, you may assign pluses (+) or minuses (-) to your letter grade (i.e. B+, B-, C+, C-, etc.). As always, rate only those games that you have played.

Demographics

(List the appropriate number)

1. What is your age (in years)?

2. What machine(s) do you play games on?

(List all numbers that apply. List the machine you use most often first, the others in descending order of use.)

1 = IBM, clones, Tandy
2 = Amiga
3 = Apple 8 bit
4 = Apple IIgs
5 = Atari ST
6 = Atari 8 bit
7 = C-64/128
8 = Macintosh
9 = Other (specify)

3. How much time do you typically spend playing computer games each week?

1 = Less than 2 hours
2 = 2-5 hours
3 = 6-10 hours
4 = 11-20 hours
5 = 21-30 hours
6 = 31+ hours

4. Do you regularly read the Rumor Bag column?

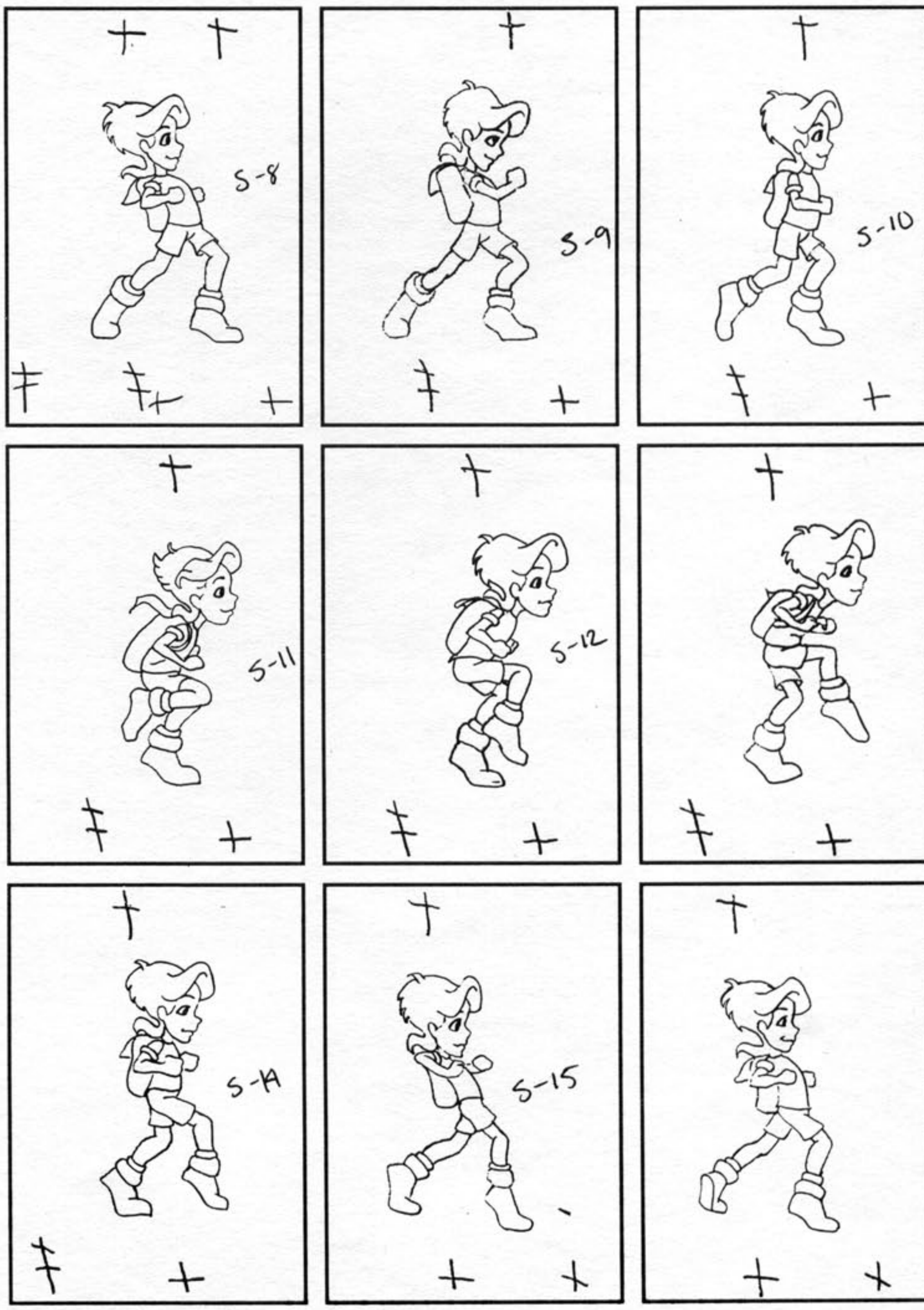
Games

5. Warlords (SSG)
6. Silent Service II (MicroProse)
7. Universal Military Simulator II (MicroPlay)
8. Eye of the Beholder (SSI)
9. Modem Wars (Electronic Arts)
10. Trump Castle II (Capstone)
11. Overlord (Virgin Mastertronic)
12. NFL Challenge (XOR Corporation)
13. Carrier Command (MicroPlay)
14. Troika (Paragon)
15. Hoverforce (Accolade)
16. Space Quest IV (Sierra)
17. Red Baron (Dynamix)
18. Pro Tennis Tour 2 (Ubi Soft)
19. Railroad Tycoon (MicroProse)
20. Elvira (Accolade)
21. Wizardry: Bane of the Cosmic Forge (Sir-Tech)
22. F-29 Retaliator (Ocean)
23. M-1 Tank Platoon (MicroProse)
24. Arachnophobia (Disney Software)
25. Theme Park Mystery (Konami)
26. Dragon Wars (Interplay)
27. Secret of the Silver Blades (SSI)
28. Zany Golf (Electronic Arts)
29. Populous (Electronic Arts)
30. Their Finest Hour (Lucasfilm)
31. Death Track (Activision)
32. SimCity (Maxis)
33. Shanghai II (Activision)
34. Harpoon (Three-Sixty)
35. Lords of the Rising Sun (Cinemaware)
36. Starflight 2 (Electronic Arts)
37. Nuclear War (New World Computing)
38. Wing Commander (Origin)

Articles

39. Taking a Peek
40. Continuum Review
41. DarkSpyre Review
42. The Rumor Bag
43. Magic Candle II Preview
44. Nuclear Submarine Tactics
45. Industry News: Virtual Reality
46. Willy Beamish Design Notes
47. Lexi-Cross Review
48. Over There
49. Awesome Tips
50. Humor: Doc-U-Quest
51. Red Baron Tactics
52. Rules of Engagement Designer's Notes
53. Wing Commander Secret Missions Review
54. Column: CD-ROM
55. Scorpion's View: Death Knights of Krynn
56. Sim Earth Robotics
57. This issue *overall*
58. How many pre-school age (3-5 year old) children do you have?
59. How many grade school age (6-12 year old) children do you have?
60. How many teenage children do you have?

Make your own *Willy Beamish* animation test.... (See page 50)



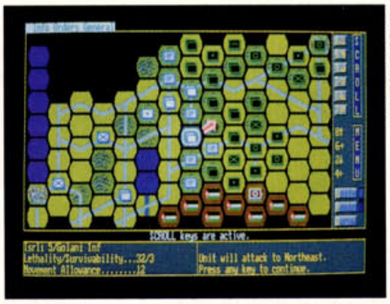


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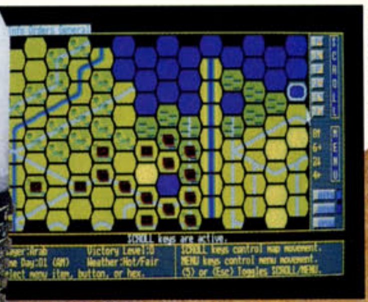
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Over There

"Floor 13... *Going Up!*"

by Paul Rigby

The latest game from **Virgin Mastertronic** (and coded by the **PSI Software** that produced the budget strategy game *Conflict*) is *Floor 13*, a strategy simulation in which the player takes the role of Director General of a secret police force. The purpose of this covert organization is, like any secret police force, to keep the government of the day in power and it achieves this by finding and removing any threat to it. As the Director General, the player is all-powerful (i.e. able to tap phones, deploy surveillance teams, search premises, infiltrate groups, smear, abduct, interrogate and assassinate suspects), coping with several plots at once. A plot is comprised of a series of events which can be followed through newspaper reports, meetings, phone calls between people, passing objects between people and movement from place to place. *Floor 13* will be available in the fourth quarter of 1991 for the IBM, ST and Amiga.

Coming on two disks (a program disk and a data disk) with a small(?) 78-page manual is **Thalion**'s attempt at an air traffic control simulator. Though **Thalion** promises that data disks are on the way, no extra disks are available at present. *FRA* presents a menu of name slots for the player to complete (eight flight controllers can be entered). Difficulty level increases with wage level chosen. *FRA* provides ten difficulty levels, the more difficult levels including bad weather zones, emergency cases and even hijackings! The player will also be required to play longer to successfully complete each succeeding level (5 to 25 minutes).

There are four German airports on the data disk. Play can be started at any of four stations: the grand scale (covering the airport and its surrounding areas), the tower, departure or approach. The radar screen in *FRA* is so large that only a portion can be seen at one time. Moving the mouse to the extremities of the screen will flip the screen to the ends of the display plus any other information such as the control-strips illustrating what aircraft are in the area plus their information (height, speed, etc).

Orders can be given by clicking on the iconic representation of the aircraft on the radar or on the control-strip. A box pops up with all of the aircraft's information, along with options to order alterations in height, speed and so on. After this, a click on the "OK" gadget closes the box and a synthesized voice (the player's, supposedly) relays these orders to the aircraft concerned. *FRA* is available now on the Amiga; check for prices.



Floor 13



Mega-Lo-Mania

Everybody wants to rule the world — fair enough, but how about controlling everything including evolution itself? **Mirrorsoft**'s new game, *Mega-Lo-Maniacs* lets the player do just that. The upshot is that cavemen could end up flying Spitfires while Roman centurions compete using nuclear weapons!

Backing up the graphics is over 1 Meg (on the Amiga) of digitized speech recorded by Richard Joseph — one of the foremost computer technicians in the business. Mirrorsoft indicates that *MLM* should be an impressive challenge as one fights the forces of nature, plus three computer opponents, with alliances and treaties, etc. *MLM* should be available now on Amiga and ST.

Alcatraz is **Infogrames**' semi-sequel to *Hostages* (in the U.S., *Hostage Rescue Mission* from **Mindscape**). It tells the tale of a crack special forces group going in to bust drug kingpin Miguel Tardiez. He is holed up in Alcatraz of all places, so the boys in black have to undergo a six-stage, multi-style infiltration mission. One innovation is *Alcatraz*' "interactive" sound effects (i.e. the more noise players make during the stealth portions, the harder the game becomes).

Millennium 2.2, a space empire game published a while back, posed the task of avoiding mankind's extinction while working from a moonbase workstation. Now **Activision** has produced a sequel. In *Deuteros*, a thousand years have passed. Was there ever a moonbase? Did man once span the system or is it a myth? Legend has it that Earth City was a mere colony reinstated on the Earth after some catastrophe killed the planet. Now, after years of training and research, Earth City can solve the riddle. A monumental community effort will be needed to organize this space quest, not only to locate the moon base, but also to find and mine the exotic minerals that will fuel the conquest of the galaxy.

In *Deuteros*, players will need to "train" their characters to build, research and fly the craft from Earth (each holds a skill). As knowledge becomes available to the player, so does the ability to roam the solar system at will. Ensuring that each orbital factory has the right personnel and is following the right instructions in correlation with the right machines will be the player's first challenge. Few plot details are initially given in *Deuteros*, making the game a challenging voyage of discovery, complete with plenty of plot twists. Available now on the Amiga with PC and ST to follow.

Note: The above games, and any of the other games mentioned in "Over There" in past issues, can be obtained from:

Computer Adventure World, 318 Kensington, Liverpool, England, L7 0EY
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All of the above telephone numbers assume you can dial direct. If you have any trouble contact the international operator. **CGW**

Taking a Peek

(Continued from page 8)

a league with *Lemmings*. Oh, sure, there is climbing, web-spinning and all kinds of acrobatics like that, but with Spidey's wife Mary Jane kidnapped by Mysterio, it's more than a test of wills. IBM ($34.95). Circle Reader Service #10.

TROIKA: This package contains *three* of those now-famous compulsive/addictive games from the culture that brought us *Tetris*. These three arcade/strategy games (with fine graphics and sound support) are remotely linked by a science fiction storyline of galactic exploration and conquest (yeah, sure) but retain the high standards set by both *Tetris* and *Welltris*. The three games include Ivan, Metal Hearts and Rebel, each of which is as hard to stop as Rasputin was. IBM ($34.95). Circle Reader Service #11.

Potomac Computer Systems
10406 Holbrook Drive
Potomac, MD 20854

ZZT—THE OBJECT ORIENTED GAME: Billed as the first major computer game to use object-oriented programming, this pleasant piece of shareware it truly *charming*. A simple to learn quest game with a bit of arcade reflex required, strategy and puzzle solving are the real keys to the "keys" required for success. Playable in four or sixteen color (or monochrome), *ZZT* not only boasts an easy, yet challenging game, but also a construction set! IBM ($14.95, including shipping). Circle Reader Service # 12.

Sierra
Coarsegold, CA

SPACE QUEST IV: ROGER WILCO AND THE TIME RIPPERS: The status line reads "Space Quest XII," but Roger Wilco is definitely in the right time continuum in this sequel to his award-winning space romps. This latest epic is resplendent with over 100 hand-painted and digitized 256 color VGA screens. The sound board support is superb with over one megabyte of music and sounds. With surprising animations, unbridled humor, and an intense introduction sequence, *Space Quest IV* rivals anything that Sierra has produced thus far. After the introduction, Roger is thrown through time, into the world of Space Quest VII, with the Sequel Police on his heels bent on making this the last adventure for our hero. Will they succeed? IBM ($59.95). Circle Reader Service #13. **CGW**

Abstracts From *The Journal of Computer Game Design*

(Continued from page 38)

Synthetic Creations

by Chris Crawford (*Balance of the Planet* and *The Global Dilemma: Guns & Butter*)

Crawford shared an idea for creating synthetic languages with seeming coherence. Observing that computer scientists had tried to create a synthetic Shakespeare by creating frequency tables based on how many times letters and letter combinations occurred in the entire Shakespearean corpus (i.e. "e" occurred x% of the time, "ef" occurred y%, etc.), Crawford hired a typist to input a huge index from a scholarly book about Central Asia. Then, he created a similar frequency table for Mongol and Turkish names from that index. He wrote a Pascal program of 150 lines to spew out names from the frequency table and generated *phony* (or perhaps, we should say "phoneme") names like: Kabinongot, Yushin, Kamangri, Bakirksh, Ogalymamus, Malda, etc. They may not be actual words/names, but they are all pronounceable and they have a coherency not always found in literature and game universes. Chris observed that the technique might even be protracted to include two-dimensional frequency tables for certain types of images (maps, for example). The article was remarkable for demonstrating an additional tool for world-building.

Chris Crawford's First Computer Game

by Chris Crawford

In one article, Crawford reminisced about his first computer game design. It was a tactical armored game, written in FORTRAN. He obviously didn't sell any copies, since there weren't too many IBM 1130 machines in the basements of wargamers. Nevertheless, the machine had 16K of RAM and Crawford input and received data on a *Selectric* teletypewriter.

Crawford took a set of maps from the **Avalon Hill** boardgame, *Panzer Leader* and some lead miniatures of tanks. He placed the maps and miniatures next to the computer. Then, the computer would print out coordinates of events and Crawford would move the tanks around the map to reflect the changes dictated by the computer referee.

The game featured a data structure in RAM so that the program could figure its way through a hexgrid map. The program used a primitive fog of war to figure line of sight and let players know what they could see or not see. There were no graphics or sounds, simply the algorithms for determining events and providing an artificial opponent.

Crawford readily admitted that the AI was not very good. He compensated (as, alas, many designers still do) by giving the computer opponent a 2:1 numerical superiority.

The game's programming was initiated in May 1976 and was actually running in September of the same year. In December of 1976, Crawford set up a wargame convention at the community college in Nebraska where he was teaching physics. He unveiled the game for thirty of the attendees during that convention and watched delightedly as his program, *Wargy I* defeated several of the experienced gamers.

Long-time gamers will recognize many of the elements in *Wargy I* that became *Tanktics*, a computer-assisted boardgame, from **Avalon Hill Microcomputer Games. CGW**

Conversions Received

Gunboat (Accolade) Amiga
Chuck Yeager's Advanced Flight Trainer 2.0 (Electronic Arts) Amiga
Bill Elliott's NASCAR Challenge (Konami) Nintendo
Awesome (Psygnosis) Atari ST
Lemmings (Psygnosis) Atari ST
King's Quest I (Sierra) Amiga
Mixed-Up Mother Goose (Sierra) MS-DOS CD ROM
Quest for Glory II (Sierra) Amiga
Space Quest III (Sierra) Macintosh
Stellar 7 (Sierra) Amiga



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The Memo, the Movies and Computer Games

The State of the Industry: Walt Disney Chairman Jeffrey Katzenberg wrote a memo earlier this year that apparently shook the foundations of every production office in Hollywood. *The* Memo, as it was referred to by entertainment industry insiders, created an epicenter of concern that radiated outward from his own studio into the film community at large. The document itself was apparently 28 pages of common-sense observations on the film-making business.

As long-time observers of "The New Hollywood," the entertainment software industry, we could not help but notice some further parallels between the two types of studios. Katzenberg's most important points were rather obvious, centering on the necessity of a script. He allegedly stated in one portion that stars, directors, writers, hardware, special effects, etc. had to be subservient to the script. At another point, he is reputed to have said, "Scripts are it."

One cannot help but reflect on how many times computer games are marketed as having "better graphics," "better sound" and new technologically advanced features, but lack either story or plausibility. How many times have computer gamers purchased software that was developed strictly because the publisher managed to get this "great license" or the developer discovered he could do "this neat stuff?"

It may seem to belabor the obvious, but the computer games that really make the difference are games that are built around a focused idea. The game play, the simulation model, the play balance and/or the story should all pull the interface, graphics, soundtrack, documentation and even the packaging/marketing together. To quote "The Memo," "*Scripts* are it." The ideas and research that lead players into that blessed state of "suspended disbelief" are the scripts of our business. Without those elements, computer games have no soul and, ultimately, no appeal.

Another fascinating parallel between our industry and "Hollyweird" can be seen in Katzenberg's admonition not to try to squeeze the last dollar out of every deal. He states that it is more costly in the long run to drive a hard bargain. Frankly, the computer game industry is full of talented people who will not work for one company or another again because they feel like they were cheated or abused in a business relationship. Then those very same artists went to another publisher or started their own company and produced megahits immediately thereafter. Is this symptomatic of our industry's "fear of stardom?" Are we afraid the designers are going to take our companies away from us?

Of course, Katzenberg also told his executives not to be afraid to put a project in "turnaround" (that creative limbo where a script and/or package is being optioned to other studios or put on hold) for fear that someone else would make a successful film out of it. He recognized that certain projects require certain collaborations before they can work that box office magic. "Turnaround" does not usually occur in our industry. We are too afraid of losing our proprietary secrets and blunting our technological edge. Interestingly enough, however, many of the most successful small publishers of entertainment software are actively swapping technology and personnel. Their products are looking better all the time and the larger producers may have to either watch out for stronger competition or pony up the funds to acquire them. Still, it would be interesting to see what "dead" projects at one publisher might look like if they were picked up by another.

Finally, Katzenberg talked about packaging creative teams together, giving them guidelines and letting them go. Every publisher in the software industry pays lip service to the idea of a creative team, but there is a burgeoning bureaucracy at the larger publishers that can completely stifle the creative impulses if it is not reined in by executives taking the risks of listening to and acting upon the concerns and ideas of the creative community.

State of the Magazine: "The Memo" points out some of the dangers to be avoided in a creative industry. Indeed, "creative industry" is almost oxymoronic. It is difficult to be creative and stay in business. Yet, in entertainment industries above all others, it is necessary to be both an artist and a businessperson.

This issue, *CGW* takes you "Behind The Screens." We show you some of the artistic quest behind **Sierra**'s *Adventures of Willy Beamish* and **Omnitrend**'s *Rules of Engagement*, as well as provide some brief notes from the *Journal of Computer Game Design*. Two views of the future of computer entertainment are emphasized as British correspondent Paul Rigby shows us what is new in virtual reality and "The Circuit Writer" talks aboutfinding the right CD-ROM. Two articles offer "inside" information on popular games (*SimEarth* and *Wing Commander: The Secret Missions*). We don't have any of Trip Hawkins' or Ken Williams' memos to publish, but we do think this issue will make every reader a computer game industry insider. **CGW**

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